THE BUILDER

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WAR INSURANCE: A MEASURE OF JUSTICE

THE first reactions to the measures taken in connection with War Damage Repair and Compensation were mixed. There was at first a general feeling of admiration for the speed with which action was taken and an elaborate machinery brought into motion; but this was quickly followed by some misgivings about the degree of justice that was being meted out to the less fortunate among the citizen soldiers.

There was the grievance that these unlucky people were being asked to carry the full burden of their loss until after an indeterminate war period, and through those times when the extra burdens thrown upon them would be the hardest to bear. Then it was seen that when they had weathered that difficult time, and the war had ended, they were to receive no more than their share of available funds, which was reasonable, but in no case more than the cost of repairs reduced to a pre-war basis. It was not only that the Government had seemingly determined in advance not to pay in full, but that the burden represented by the disparity between war-time and pre-war prices would be an increasing hardship as the war went on and building costs inevitably rose. There were all the usual characteristics of State bounty evident in the scheme, alternating between the generous impulse of the nation and the niggardly red tape of the Civil Service. If we are to get only a part of our loss returned to us after the war, it was said, at least let the share-out be fair and equitable.

Again, the local authorities were empowered to enter upon private premises immediately after war damage had occurred and carry out what are known as "first-aid repairs," doing these in whatever way the authority thought best and without awaiting the permission of the owners. They were then permitted to register the cost of these repairs as a charge against the property. Even now it is not known whether the whole of that charge is recoverable or the whole of it reduced to a pre-war basis, or whether such of it as has to be replaced by permanent repair can be charged at all. There was something of Fascism in this somewhat ruthless behaviour, against which the normal Englishman instinctively reacts, and only the desperate urgency of events made it even tolerable. Altogether, it may be said that the first stages of these operations satisfied few, and left many definitely discontented.

Now it may be said that the new War Damage Insurance Bill goes a long way towards removing some of the more acute objections, and that with judicious amendment it bids fair to leave a general air of content behind it. It will be seen, first, that the basis of compensation is to represent actual current cost of repair. That, surely, is the only basis upon which insurance of property can be conducted, where replacement value has always been the ruling datum wherever property has been properly covered, whether it rules the assessor after the event or the insured party in calculating the amount of cover to be taken. At the same time it will be seen that the citizen will be given equal justice whether his ill-fortune has already arisen early in the Battle of Britain, or later in a protracted war. The sponsors of the Bill are to be congratulated on having thrown over this inconsistent way of working and reverting to the fair way.

Then there is the time for making payments, and the Bill really removes the last excuse for asking the loser to "hold the baby" for duration, a prospect which the most affectionate parent could hardly view with equanimity. It will be seen that payment for first-aid repairs and repairs to essential properties will be made at such time as is deemed to be in the public interest, and as these works are almost entirely concerned with public funds there seems every reason for giving to the Government this safety valve against financial pressure. But "cost of works" payments are to be made as and when repairs are carried out, and the additional burden thrown upon the unfortunate property owner is thus removed. Any other treatment of funds built up out of compulsory contributions would be neither honest nor just, and it is good to see these cardinal virtues receiving their full measure of respect.

Yet another right step has been taken in binding the Exchequer to make good any deficiency between the fund and the calls upon it at any period. There is no half measure of "so much on account," and a grave risk has been rightly taken.

Finally, there is the rather strange use of Schedule A Assessments as the basis of fixing premiums. As taxation is nominally based on revenue value and compensation in most cases will be on replacement value, there are bound to be a number of anomalies in this connection. It seems strange that as practically every house and building in the country is insured against fire, some use has not been made of the figures of cover agreed between the insuring company and the insured. One would have thought these records would be sufficiently accessible to be used, or at least considered, in this connection; they would have carried great weight, representing as they do the value which the owner has thought well to put on his property—a value which the insurance companies see does not represent over-insurance. We shall expect some modification of this part of the Bill, and it will become less controversial if that can be done.

In the meantime, most of us feel relieved that this matter has been brought a long step forward, and that some of the worries of life in war time have been at last removed, if, indeed, we may anticipate the Bill as an Act.

LONDON DAMAGE

From a drawing by R. Myerscough-Walker

NOTES AND NEWS

Ministry of Works Appointments.

LORD REITH, Minister of Works and Buildings, has made two appointments. Deciding to revive the post of Director of Works, which has been in abeyance since 1927, he has appointed Col. C. L. Howard Humphreys, of Messrs. Howard Humphreys & Sons, consulting engineers, to this position.

The divisions of the Ministry which will be included in the new Directorate are those of the Chief Architect, Chief Engineer, Chief Maintenance Surveyor, Chief Structural Engineer, and Chief Quantity Surveyor. On architectural and æsthetic questions the Chief Architect will advise the Minister direct.

Col. Humphreys is a member of the Council of the Institution of Civil Engineers and of the Institution of Mechanical Engineers.

Mr. T. S. Tait, F.R.I.B.A., senior partner of the firm of Sir John Burnet, Tait & Lorne, of London and Edinburgh, has been appointed Director of Standardisation in the Department of the Controller of Building Materials. He has taken with him as principal assistant Mr. Frederick MacManus, A.R.I.B.A.

The Ministry states that it is important in the economy in materials and labour that the number of classifications of materials should be drastically reduced.

The Royal Gold Medal for Architecture.

ON the recommendation of the Royal Institute of British Architects His Majesty the King has signified his approval of the award of the Royal Gold Medal for Architecture to Mr. Frank Lloyd Wright, the eminent American architect.

London War Damage.

THE Palace of Westminster has been damaged on three occasions by German bombs. They have done little damage to the fabric. The latest damage is to the Private Bills Office. The part of the House of Commons chiefly affected runs round the Cloister Court. No important books or records were lost. The bomb fell not many yards from the Chamber, which was, however, untouched. The oldest part of the Palace, Westminster Hall, escaped harm. The crypt suffered minor damage.

In an earlier raid the House of Lords was struck by an oil bomb, and in another a bomb fell near St. Stephen's entrance and damaged the war memorial.

In the deliberate attempt to fire the City made by Nazi airmen on Sunday night, severe damage was done to many churches and buildings of historic interest. The Guildhall, the 500-year-old seat of the Corporation of the City of London, was burnt out, not by direct result of incendiary bombs, but by being ignited by the burning church of St. Lawrence Jewry. Nearly all the furnishings and decorations were burnt or smashed, but fortunately the greater part of the records and historic treasures had previously been placed in safety.

Besides St. Lawrence Jewry, seven other Wren churches were burnt. They were St. Bride's, Fleet-street; St. Andrew-by-the-Wardrobe, Queen Victoria-street; St. Mary the Virgin, Aldermanbury; St. Stephen's, Coleman-street; St. Vedast, Foster-lane; Christ Church, Greyfriars, with St. Leonard Foster; and St. Mary Woolnoth.

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St. Paul's Cathedral had a miraculous escape, though ringed with fire and struck by several incendiary bombs. These were promptly dealt with by the Watch before doing serious damage. The Chapter House opposite was badly damaged.

Other buildings damaged or destroyed were Dr. Johnson's house, in Gough-square, Fleet-street; the Central Criminal Court; the church of St. Anne and St. Agnes, Gresham-street; and the City Carlton Club in St. Swithin's-lane.

"The Builder" New Year Issue.

OUR New Year issue, to be published next Friday, will contain features of current interest to architects and the constructional trades. Mr. Cotterell Butler will write on "Air Raid Shelters: the Problems Reconsidered," in which special attention will be devoted to shelter services and equipment. "War Damage and the Architect" will be dealt with by Mr. Frank T. Winter, F.R.I.B.A., who will give practical hints on "vetting" and assessing war damage to buildings. There will be a section on Repair of Factories under War-time Conditions. Prices for materials and work at March, 1939, will be reprinted.

Mr. Martin S. Briggs contributes an article on "Architecture in the Egyptian War Zone," and other articles on subjects of professional and practical interest are included. Current architecture will be fully represented. As no reprint is possible, orders for this issue must be placed with the Publisher in advance. The price is 1s. 6d., or by post 1s. 10d.

The People's Convention.

A MEETING of London architects, engineers, surveyors, etc., is to be held on Saturday, January 4, 1941, at 2 p.m., at the National Trade Union Club, 12, Great Newport-street, W.C.1, to discuss the People's Convention and to elect delegates.

IN 1916.

EXTRACT FROM *The Builder*, JANUARY 7.

EDINBURGH ARCHITECTURAL ASSOCIATION.—Owing to the fact that the majority of the members are now on military duty, the Associate section of this Association have had to suspend their syllabus.

THE RESERVATION OF ARCHITECTS

THE following statement has been issued by the R.I.B.A.:—

It will be remembered that at the outbreak of war architects were reserved at the age of 25. Some little time later the age was raised to 30 on the recommendation of the Architecture and Public Utilities Committee of the Ministry of Labour. Shortly after, without reference to this committee, architects were removed from the schedule of reserved occupations altogether, but on representations being made by the committee were put back again within seven days. Again without reference to the committee further changes were made in the schedule in that a new class of "pupil architects" was introduced and reserved at the age of 25 and architectural draughtsmen were reserved from the age of 21. Further representations were made by the Architecture and Public Utilities Committee and these changes were cancelled, all architects being reserved from the age of 30.

However, at the end of 1939, architects were removed from the schedule altogether and were thus free to enlist in any of the armed forces if they so desired.

Shortly after the heavy bombing of London started there was a sudden and large demand for the services of architects and architectural assistants to assist Government Departments, local authorities and private clients in the survey and repair of war damage, etc., and it soon became apparent that the demand greatly exceeded the supply. On September 30 the President of the R.I.B.A. wrote to the Minister of Labour urging that all architects and architectural assistants over the age of 33 should be at once reserved. The matter was then referred to the Architecture and Public Utilities Committee and the latter, at a meeting on November 5, passed a unanimous resolution confirming the request of the President and recommending that all architects should be reserved from the age of 33. It should perhaps be explained that the committee contains representatives of the R.I.B.A. and other architectural bodies, the Chartered Surveyors' Institution, the Auctioneers' and Estate Agents' Institute, and the various Government Departments which employ architects in either a private or salaried capacity as well as representatives of the Treasury and Ministry of Labour.

A considered memorandum was prepared setting forth the reasons for the committee's unanimous recommendation, and this was submitted to the Government Committee which is responsible for the schedule of reserved occupations.

It has just been learned from the Chairman of the Architecture and Public Utilities Committee that the unanimous recommendation of the Committee has been rejected. A further meeting of the Committee will be held at an early date, and it is the intention of the R.I.B.A. to do everything in its power to secure the reconsideration of this decision, in which action they know that they will have the support and co-operation of the other professional bodies and Government Departments represented.

It is, of course, unnecessary to set forth here the reasons for the Committee's recommendation in favour of reservation which were sent to the Government Committee. These will be obvious to every architect.

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Central Council for the Care of Churches.

To the Editor of *The Builder*.

Sir,—My attention has been drawn to the letter of Mr. Reginald Hallward in your issue of December 6 in which he attacks the whole Advisory Committee system because a design of his for St. Mary's, Ely, has not been approved by the Ely Diocesan Committee. I do not know the details of the particular case, but I must protest against the extreme unfairness of this attack. The Committee have not condemned the design as such; they have only expressed the opinion that it is not suitable for a particular church. Your correspondent apparently refused to meet the Committee at the church.

But the main burden of Mr. Hallward's attack is that the system as a whole is hostile to orginal artistic work. This is emphatically not true. In one case after another the Committees have pressed the claims of original work on parishes where they regard it as suitable, particularly in modern churches. Again and again, committees have been attacked for this by some donors and church councils whose untrained outlook sees everything in the terms of the nineteenth century. The Central Council have written in the plainest way in condemnation of the narrow waves of artistic taste which have done so much harm in the past, and in some of their reports they have illustrated work of a more modern character than anything I recall of Mr. Hallward's. But it is widely felt that in ancient churches, while the Victorian ideas of uniformity are to be avoided, certain restraints have to be observed to meet the view that, in such surroundings, care must be taken not to distract attention too greatly from the ancient work.

Mr. Hallward's competence to criticise the system in the country may be judged by the fact that he knows so little about it that he assumes that work in Ely Cathedral must have come before the Diocesan Committee. It is difficult to think that Mr. Hallward can have read the Council's seventh report, page 35, or noticed the illustrations in the sixth report, page 12, or the last report, page 35.

The Advisory Committee system is working under extreme difficulties at the present time, when their work is of the first importance in preserving the most valuable artistic treasures of the country. Their policy for raising the standard of modern work is clear for all to read who will take the trouble. No artist can demand to be taken at his own valuation by every one of the 42 committees in every case. To attempt to injure the whole official system at the present juncture on the strength of one rejection, even supposing it to have been a mistake, is to do a grave national disservice to the wider artistic interests of the country.

Francis C. Eeles,
Secretary, Central Council for the Care of Churches.

Earlham,
Dunster, Somerset.

The Ministry of Works and Buildings.

To the Editor of *The Builder*.

Sir,—The first essential for the Ministry of Works and Buildings is to design and build a headquarters worthy of its great purpose. Other Government Departments, such as the War Office and the Air Ministry, have their headquarters. The Ministry of Works and Buildings should have a properly planned building comprising all departments, such as administrative, architects, engineers, quantity surveyors, library, ordnance plans, printing, model workshop, laboratories, etc. The task of reconstruction will last for perhaps a hundred years, but the foundations must be laid now.

At present every Government Department has its architects' staff, and as these are scattered there is complete lack of co-ordination. If any new problem arises it is often a case of digging out old plans and adapting them. This will not do. Building science has advanced and new ideas in design and construction are in use. Outworn ideas must go. Let us plan for a new age, and for this purpose the new Ministry must have a proper building and offices to work in. Let a new standard be set, for architects and engineers cannot produce their best working in odd holes and corners.

This is a big job and must be undertaken in a manner equal to the occasion. For once let us have architecture and building in the grand manner and build worthy of our imperial heritage. The health and prosperity of future generations will depend on what is decided and planned for now. In the new headquarters all departments would be under the one roof, with branch offices at sites of new works, not temporary structures, but permanent buildings capable of being incorporated in the final design. We have shown our capacity to plan for war. Let us also prepare for peace. Thought and design there must be, otherwise the material will be either misused or entirely wasted.

Further, the nation will shrink from no sacrifice for a purpose in which it believes. In war it has gladly accepted, indeed demanded, leadership which calls for sacrifice from all. The planning of peace calls for a leader who will have the courage and vision to make the same appeal. Who knows but that a more enlightened age may even see the War Office replaced by a nobler building—the Peace Office, for "peace hath her victories no less renowned than war."

Finally, I would suggest that an open competition be held and designs invited for a Ministry of Works and Buildings, with the Fine Arts Commission appointed as assessors.

J. E. Rhind, A.R.I.B.A.

Weybourne, near Farnham,
Surrey.

MR. T. S. TAIT, F.R.I.B.A., who (as stated on page 3) has been appointed Director of Standardisation by the Minister of Works and Buildings.

Town Planning and Reconstruction.

To the Editor of *The Builder*.

Sir,—The paper of Mr. D. E. Gibson, M.A., the City Architect of Coventry, is a good summary of the points to be observed in future town planning and reconstruction. On the broad aspect of the matter he does not advance any new suggestion, because I do not think there is anything new to say. The issue now is between reconstruction *in situ* or new centres elsewhere. The evil of war gives us an opportunity to adopt the latter plan in view of the considerable destruction in our cities.

He sees the need for delimiting the frontiers of the architect and the engineer. He thinks that "all layouts of building sites and streets and the design of buildings should be under the direct control of architects who are town-planners," and adds, "It is unfortunate that in so many local authorities there is no architect in control." On several occasions I have referred to this overlapping of duties in your columns and to the undignified discussions of the subject in the Press between the rival professional men. But it is too big a question to discuss now in detail. Suffice it to say that the disease affects many professions, and that I have proposed as a remedy the federation of all professions to fix the scope of their duties. If they cannot agree, an external tribunal should decide for them on points of difference. In a "new world order" the present chaos and wasteful methods would be intolerable.

Mr. Gibson, as an architect, plumped for the architects; the engineer plumps for the engineer, the surveyor for the surveyor. A large percentage of all these classes is appointed to official positions. The civil engineers predominate in the county councils, the surveyors in the boroughs and minor councils.

What I want particularly to emphasise in this communication is Mr. Gibson's view of the land question. He says, "the only solution for Great Britain now lies in some form of nationalisation of all land." I entirely concur. The private ownership of land is the cause that fetters modern development. It was troublesome when local government was much more parochial; it is still more troublesome now that services demand regional areas.

I wonder whether Mr. Gibson agrees with me that it would be essential to nationalise all buildings as well as all land. As a Government valuer I became well aware of the difficulty of separating these values. Also, it is the only way of suppressing extravagant claims. I remember that Lord Ashfield said that the cost of land and legal expenses prevented the railway company from paying a better dividend.

Doubtless Mr. Gibson realises the powerful opposition that the proposal would incur. Every professional body connected with land operations is highly conservative, and it used to be said that the great obstacle to reform was the strong infusion of the legal element in the House of Commons. But with the great increase of lawyers, surveyors, architects, electrical, water and gas engineers in official positions, a good number might support the proposal. Similar support might come from the owners of small properties, including purchasers through building societies, who would probably prefer mobility of employment to the difficulties of disposing of or letting their houses. The mass of the landless would form the bulk of the supporters of nationalisation.

A. W. CRAMPTON, F.S.I.

Mansfield, Notts.

Radio Club de Mocambique, Lourenco Marques.

The following notice has been issued by the R.I.B.A.: Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

COUNTY ARCHITECTURAL SURVEYS

A MAP SHOWING THEIR RANGE

By H. V. MOLESWORTH ROBERTS.

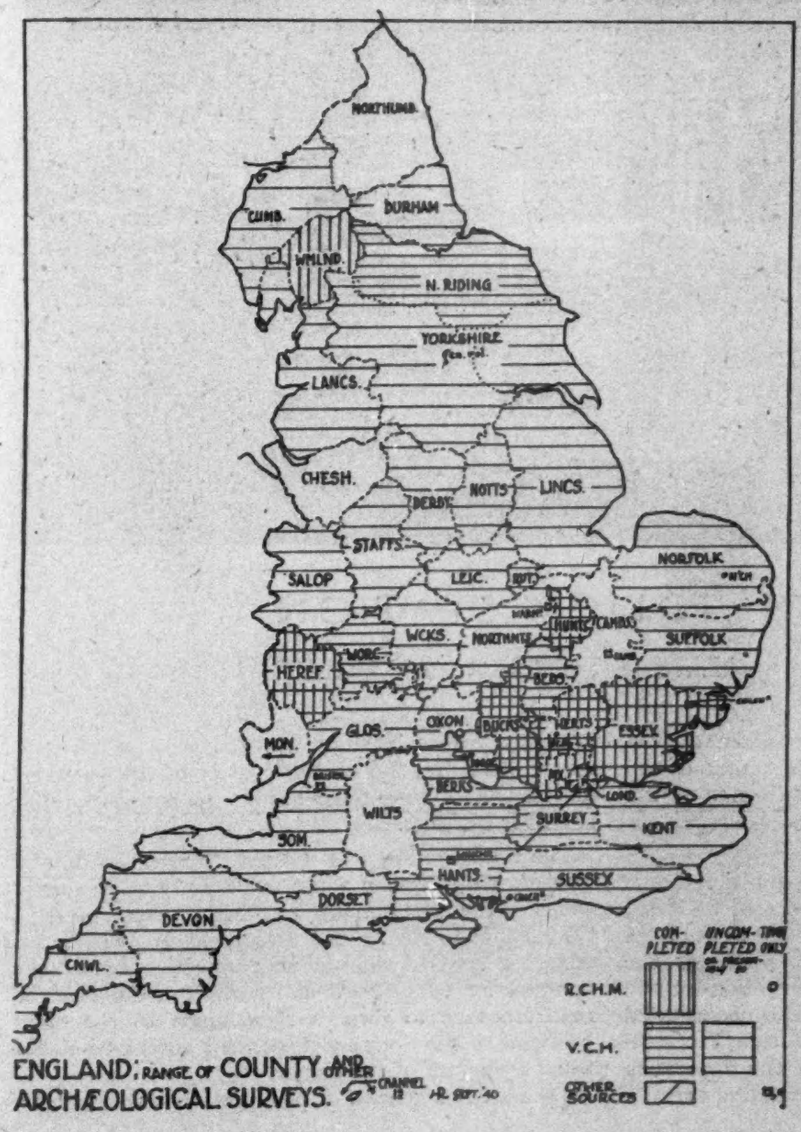
THOSE seeking information on historical buildings or other ancient monuments of a given English county, town or village, frequently need to know which volumes of the Victoria County Histories or Inventories of the Royal Commission on Historical Monuments, say, include that county. The sub-committee just set up for the collection or making of records of buildings likely to be damaged by war will increase the need for such consultation. The adjoining map may be helpful in giving such information at a glance to those not possessing complete lists of those publications. It will be seen that vertical hatching shows the R.C.H.M. and horizontal the V.C.H., wider spacing indicating yet uncompleted surveys; in the case of the latter publication the marking is of the whole work for the county, irrespective of how far the specifically architectural chapters have advanced in the issued volumes, the range of which greatly varies.

It will be seen that four counties have been neglected by both—Northumberland, Cheshire, Cambridgeshire, and Wilts—while the Channel Islands seem to have completely "fallen between the stools" of the two nationalities; and that the R.C.H.M. has published few counties, but completes each county at a time, whereas the V.C.H. has attempted many, but completed few; Westmorland is the solitary one touched only by the Commission and the only northern county by them. Monmouthshire is to be covered by the Welsh Commission.

Of the other sources at which a tentative attempt at inclusion is made, only those known to the writer are noted, but additions can be made to the map by the user. The county works (diagonal line) comprise: in London, the works of the Committee for the Survey of the Memorials of Greater London (or London Survey Committee) with the L.C.C., called the Survey of London (1900 to date); in Surrey, the Surrey Archæological Society's List, by P. M. Johnston and others, 1913, and the Surrey County Council's illustrated list, inaccurate in parts. Private works on these lines abound, but are generally less methodical. The numerous regional and town-planning reports containing archæological chapters cannot be shown.

Among town surveys of a systematic nature, the following are marked as suggestive only: Mr. J. W. Bloe's survey of Warmington, Northants, 1937 (on R.C.H.M. lines, but privately produced); semi-official lists and maps, by the local preservation or civic societies, at Cambridge, Colchester, and Bristol (all published in 1938), as well as "A Survey of the Street Architecture of Winchester," by Mr. T. D. Atkinson (1934) (see R.I.B.A. Library card catalogue). Lastly, with some diffidence, there are shown (by small circles) the present writer's sketchy but comprehensive illustrated articles in *The Builder*, entitled "The Preservation of Old . . ."—St. Albans (1925, September 11 and December 11), Norwich (1930, June 13), Dorchester-on-Thame (1930, September 3), and Chichester (1935, October 4), all with plans numbered to show positions of buildings described.

The innumerable monographs on individual buildings, among which the Official Guides of H.M. Office of Works hold an honoured place, are entirely beyond the scope of the map.

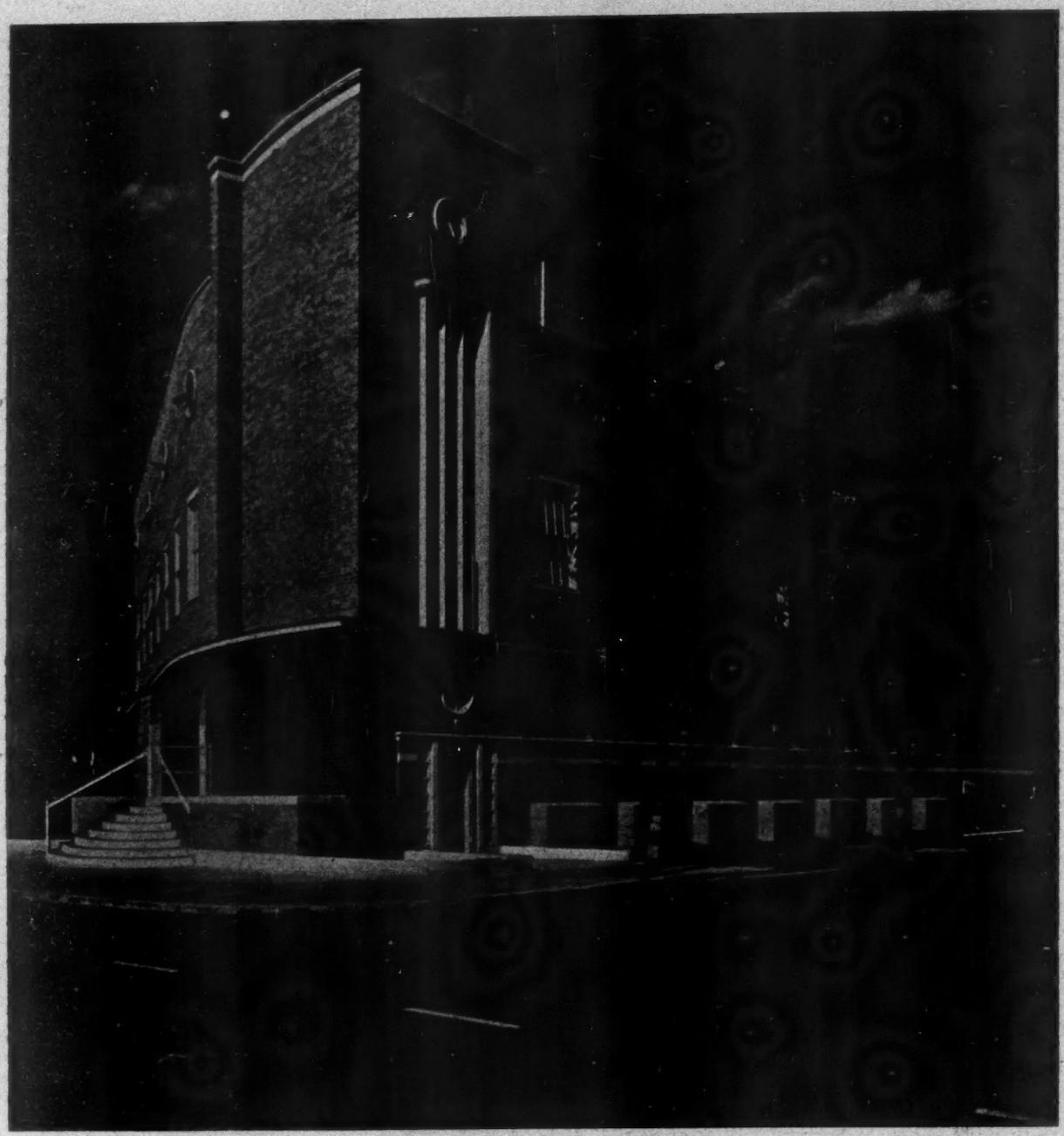


Berks Architectural Records.

It has been decided to form a Berkshire Architectural Records Committee to assist in obtaining records of old churches and other buildings of merit in the county, and similar committees, it is hoped, will be formed shortly in Buckinghamshire and Oxfordshire. The Secretary of the Berks Committee is Mr. C. B. Willcocks, F.R.I.B.A., 11, Friar-street, Reading. In the meantime, the photographic recordings of buildings in Bucks should be sent to Mr. E. A. L. Martyn, F.R.I.B.A., The Museum, Church-street, Aylesbury, Bucks. Oxfordshire records should be sent to Mr. T. Lawrence Dale, F.R.I.B.A., Lloyds Bank Chambers, Carfax, Oxford.

Ministry of Works and B.I.N.C.

Sir Jonah Walker-Smith, M.P., Director of the National Federation of Building Trades Employers, has been elected Chairman of a Committee set up by the Building Industries National Council to maintain contact with Lord Reith, Minister of Building and Public Works.



LEYTON POLICE STATION

MR. JULIAN R. LEATHART, F.R.I.B.A., ARCHITECT.

THIS Leyton Police Station is another of the stations included in the rebuilding programme of the Metropolitan Police, whose design, like some of the others, was entrusted to an architect in private practice.

PLAN: The Station, which is a sub-divisional one, has been rebuilt on the site of the original building, and though this occupied most of the site in the form of a dismal two-storey Victorian building, the accommodation required in the new Station had to be increased almost by three times. This necessitated a taller building, but the design of this has been skilfully handled and does not create the impression of an out-of-place tallness in its surrounding acres of two-floor terrace houses. The provision of a lower-ground-floor and the careful control of the fenestration on the top floor tends to give the impression of a two-floor building.

The road frontages to the site, Francis-road and Morley-road, form an acute angle and the two main wings of the new building conform to these, giving a "V"-shaped plan. The treatment of the intersection of the two wings on plan have been ingeniously handled by curving the end portion of the Francis-road frontage to form a right angle to the other frontage, a more original treatment compared to the usual slicing off of the corner.

Owing to exigencies of planning, the staff entrance

is close to the main entrance, but this has been arranged so as to take a secondary place by confining it with the light-coloured base to the ground floor of the elevation to Morley-road.

ELEVATIONS: The necessary A.R.P. work has, unfortunately, temporarily spoilt the elevational appearance, especially the main entrance doorway where it hides the interestingly-treated stone jambs. These have three free-sculptured figures on each side, by Lawrence Bradshaw, in low relief, representing on one side the policemen of the past, and on the other the police men and women of the present. The emphasis given to the ground-floor storey, which accommodates the more important rooms, provides a strong base to the building, to which additional interest is given by the use of two different coloured bricks. The general brickwork is carried out in Essex Primrose stocks, the darker portions to the ground floor being of blue bricks.

Owing to the Defence Regulations it is not possible to illustrate the plans so that a description of the planning may be of interest. In the lower-ground-floor has been arranged the necessary station stores, A.R.P. rooms, boiler house and a garage for police cars, accessible from the internal courtyard. On the ground-floor are the administrative rooms (including the inquiry office, charge rooms and cells) together with the special staff rooms and parade room. The first floor contains the recreation rooms and canteens for the officers and constables, together with offices and special instruction rooms. On the top floor the married quarters have been pleasantly situated, each flat having access to the flat roof and balconies adjoining.

FINISHES AND CONSTRUCTION: The interior of the building has been very simply treated, and depends for its effect on the pleasant use of colour and the careful detailing of the joinery work, etc.

The cells have been formed with ivory glazed partition blocks and the flooring is of coloured asphalt. The cells are naturally lighted to the exterior by glass brick windows, and are artificially ventilated.

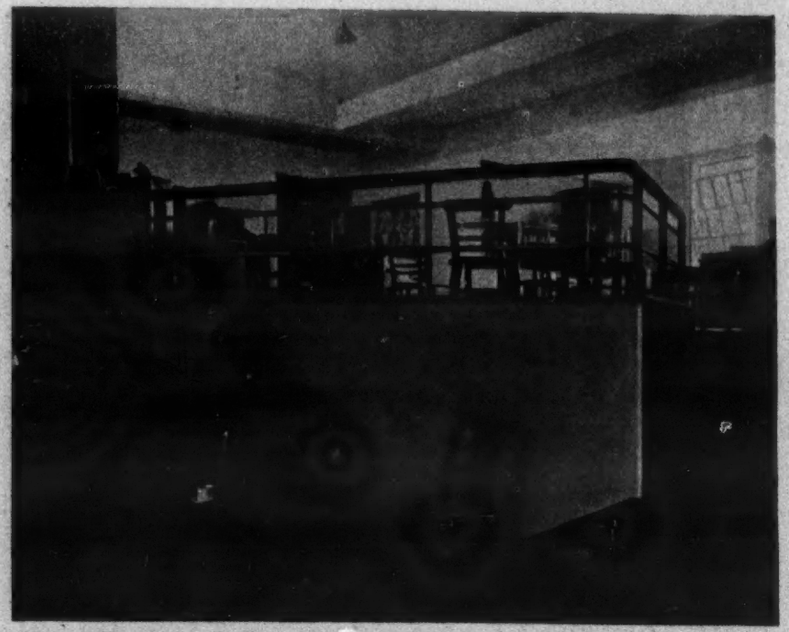
The general construction consists of a steel frame, with 13½ in. thick brick external walls; the floors and roof are of reinforced concrete, the latter finished with "Macasphalte" paving.

Metal windows have been used throughout, and these are provided with stone sills. The window sills, copings and other dressings to the exterior are in natural Portland stone. The heating is on the low-pressure hot water system with coke-fired boilers. The general contractors were Messrs. Pitchers, Ltd., 57, Ashburton-grove, N.7. Sub-contractors were:—

Constructional engineers, Banister Walton & Co., Ltd.; reconstructed stonework, Broadmead Products Co.; "Glascrete" windows, J. A. King & Co., Ltd.; heating and ventilating engineers, Benham & Sons, Ltd.; metal casements, Luxfer, Ltd.; stair nosings, Ferodo, Ltd.; wall tiling to cells, Leeds Fireclay Co., Ltd.; door furniture, Neville Watts & Co., Ltd.; steel shutters, Haskins; patent roofing, D. Anderson & Son, Ltd.; asphalt, General Asphalte Co., Ltd.; skirting and floor margins, Marbolith Flooring Co., Ltd.; flooring and stair treads, Semtex, Ltd.; wood block flooring, Hollis Bros. & Co., Ltd.; stainless steel sinks, A. Johnson & Co. (London), Ltd.; heating plant, Jackson Boilers, Ltd.; "Grano" flooring, Stuart's Granolithic Co., Ltd.; Portland stonework, Damer Bros., Ltd.; facing bricks, Finnis & Ruault, and Procter & Lavender; and "Gyproc" plaster, Gyproc Products, Ltd.

THE FRONTAGE TO FRANCIS ROAD.

LEYTON POLICE STATION. MR. JULIAN R. LEATHART, F.R.I.B.A., ARCHITECT.



Above : ELEVATION TO COURTYARD. ON THE GROUND FLOOR ARE THE GLASS-BRICK WINDOWS TO THE CELLS.

LEYTON POLICE STATION.

Above : CANTEEN AT LOWER LEVEL.
Left : VIEW OF INQUIRY OFFICE.

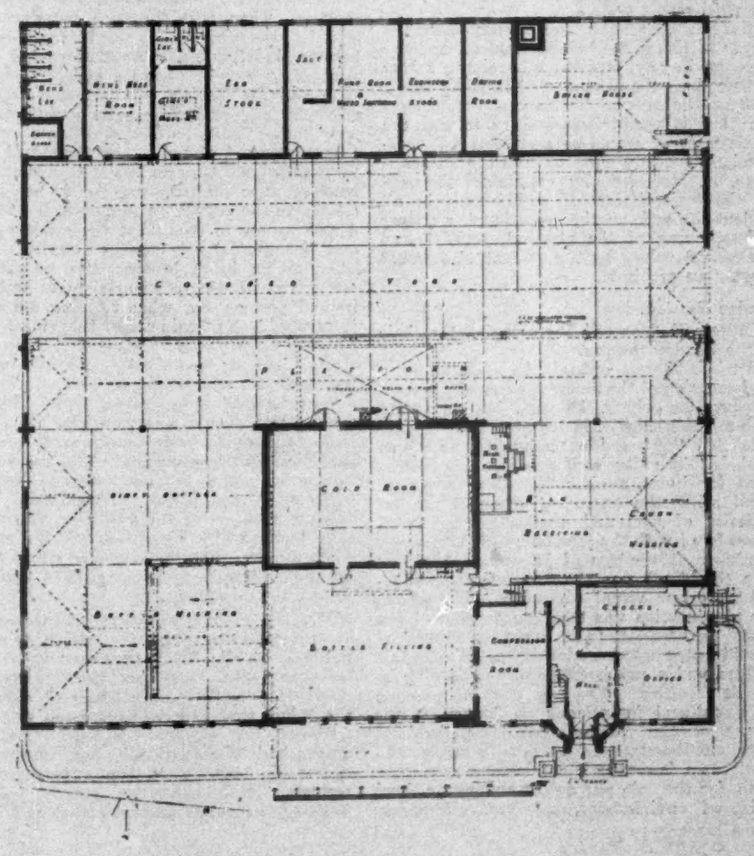
MR. J. R. LEATHART, F.R.I.B.A., ARCHITECT.

MAIN FRONT SHOWING (RIGHT) ADMINISTRATION.

A CO-OPERATIVE DAIRY IN THE NORTH COUNTRY

THE main block of these dairy buildings, facing the main road and set back 75 ft., is 160 ft. wide and 69 ft. deep. In the centre, two storeys high, is the bottle-filling room, with the cold-storage room directly behind, over which is situated the milk-process floor where the filtering, pasteurising and cooling of the milk takes place.

On the south side of this is the bottle-washing room, where the incoming dirty bottles are passed through machines in which they are cleansed, sterilised, and automatically passed on to the filling machines, where they meet the milk gravitating from the process room, and are automatically filled and capped before being passed into the cold room.



The west wing, in addition to the administrative block with its main entrance on the front, includes the milk-receiving room, where the milk is received in churns and is checked, tipped and weighed before being pumped to the process floor. Here provision is also made for the steaming, washing and sterilising of the churns. At the back of this main block, and running the full length of it, is a 20-ft. wide platform approached by a 40-ft. wide covered yard, both under the same roof. This in turn is backed by a secondary block of one-storey buildings in which is housed the boiler-house, well-pump, water-softening plant, and staff rooms. A reinforced concrete tank holding 20,000 gallons of water is situated under the platform.

The main building is faced externally with sand-faced bricks and reconstructed stone dressings, the general internal wall finish being in ivory-white glazed bricks. Where subjected to the heavy traffic of churns and trucks the floors are finished with ½-in. c.i. perforated grids laid in granolithic, and in the filling and process rooms red Adamantine tiles are used. "Ruboleum" on ½-in. screeding is the general finish in the administrative section.

MR. W. A. JOHNSON, F.R.I.B.A., ARCHITECT.

TRAINING TO-DAY AND THE POST-WAR ARCHITECT

N.A.S.A. CONFERENCE AT HULL

A SUCCESSFUL conference was held by the Northern Architectural Students' Association at Hull on December 14 and 15. The proceedings opened with a visit to the factory of Messrs. Tarran Industries, Ltd., where members were shown the manufacture of artificial stone and rapid pre-cast concrete beams. They then proceeded to the special section of the factory devoted to the fabrication of "Lignocrete" units, which are the constituent parts of the Tarran huts now being used in large quantities by the War Office. Mr. Tarran himself conducted the party round the works and entertained the students to tea. Among the party were representatives from the Hull College of Art School of Architecture, Manchester University School of Architecture, Manchester College of Art, the Liverpool School, the Newcastle, Leeds, Glasgow, Cambridge and Bartlett Schools.

The visiting speakers to the Conference were Mr. Henry Morris, M.A., Director of Education, Cambridgeshire; Capt. E. Maxwell Fry, F.R.I.B.A., President of MARS; Miss J. Blanco-White, A.R.I.B.A., Member of the Council of the A.A.S.T.A.; Mr. W. Allen, A.R.I.B.A., a member of the Architectural Science Group Education Committee; Miss Jane Drew, A.R.I.B.A.; Mr. A. Douglas Jones, Head of the Manchester School of Art School of Architecture. Apologies for absence were received from Miss J. G. Ledeboer, Mr. Ralph Tubbs and Mr. Anthony Cox.

Saturday Session.

The conference took place at the Hull College of Art School of Architecture, where there was an exhibition of the work of the Hull School. At the first session on Saturday evening Mr. G. A. Atkinson (Hull) was in the chair. Mr. F. Senior Bolland (Manchester), opening the discussion, stated that neither architectural education itself nor the preliminary education in our school education system was, at the moment, equipped to turn out good architects. His main criticisms of the present system of architectural training were (*a*) the insufficiency of scholarships; (*b*) a poor and irregular standard of entry; (*c*) lack of practical building experience; and (*d*) the shortness of the course and the lack of conviction amongst the teachers themselves. He suggested that the most satisfactory solution might be a system of regional administration which would have as its centre a School of Architecture run on Bauhaus lines, available to all secondary school students gaining entrance by examination. After the age of 16 years, the student should remain at the secondary school and take a preliminary course which would qualify him, at the age of 18 years, for admission to the Regional Architectural School, where he would spend five years as a resident student.

In the discussion which followed, Mr. Henry Morris (Director of Education, Cambridgeshire) laid stress on the importance of training the individual in the appreciation of the visual arts, starting in the nursery school and continuing throughout life.

Mr. W. Allen (Architectural Science Group) suggested that the architects, the engineers, the surveyors and the medical profession might consider jointly whether some common standard of entry in science subjects might not be agreed upon. If this could be done, the problem would be simplified for both the student in a secondary school and the authorities as well.

Mr. Campbell, of Liverpool, criticised the lack of awareness of environment in our school system to-day. He did not feel that the Bauhaus was an adequate solution of the problems of architectural training owing to the lack of its grasp of the sociological background of architecture. He also criticised the present system in which teachers in schools are also in practice. This he held to be a doubtful advantage, leading to the unavoidable neglect of the individual student. This created a dilemma, because, on the other hand, the purely academic teacher was divorced from the reality of building.

Mr. Max Lock (Head of the Hull School) suggested that the only solution to this important point was that architects should collaborate in co-operative groups, one or two members of which should maintain constant contact with the schools through teaching, thus enriching both education and practice. Group working in schools would be a basis for the future attaining of this end.

Mr. B. A. LeMare (Senior Lecturer at the Hull School) emphasised that contacts with other school activities were essential for balanced development as a corrective of over-specialisation. He also proposed an intermediary stage or "clearing house" to facilitate the selection of engineering and architectural students.

Mr. Campbell (Liverpool) stressed the importance of town planning as an integral part of the architect's training to-day. He deprecated the preliminary training, in architects' offices, of students who came into the third year of the schools in order to take their examinations.

Mr. M. Hewling (Hull), President of the N.A.S.A., raised the question of a students' magazine, which would serve as a vital link between the schools and those members serving in the Forces. This was supported by a letter from Anthony Cox (who was unable to be present) which put forward a plea for a students' publication from which a constant stream of creative ideas and criticisms could flow.

Mr. I. Phillips (Cambridge) felt that the study of all other branches of art should be included in the training and background of the student and that the inhibiting influence of examinations should be replaced by a properly organised report system.

Miss Barbara Chubb (Leeds) emphasised the danger in this system of dilettantism and the necessity in any professional training school of discipline—the discipline of learning which could not be covered by too broad a curriculum; but it would be necessary to test the propensities of would-be architects by vocational tests before entering into the school.

Mr. H. Morris finally emphasised the need for the appreciation of architecture in all student life and, on the other hand, a proper understanding of the physical, sensual and intellectual values by the student who would become an architect.

Sunday Session.

Captain E. Maxwell Fry occupied the chair at the Sunday Session.

Mr. H. Morris opened the session by a condemnation of the nineteenth-century system of education which, he said, left us to-day with a pathetic belief in the Secondary School, which left the individual unadapted to life as a whole. The city itself was the only instrument for living a civic life. We were now faced with the appalling situation of the majority of men and women finding themselves faced with the completion of culture and education at the age of 14 years. Architecture (building) was the one supreme instrument for our visual education. The golden age of education was that which followed the school age, from 16 to 25, when the individual should enter upon a glorious stage of adult culture and a psycho-physical relationship of all his faculties. The city must be planned as a cultural instrument no longer at the mercy of the cinema, the newspaper, the dogs and the streets. Lord Reith might well instigate a few experimental laboratory cities built for the sole purpose of evolving a more balanced environment, in which community living and community planning should supplant the present negative town planning conception. Money should be a means of attaining a civic culture based on life values.

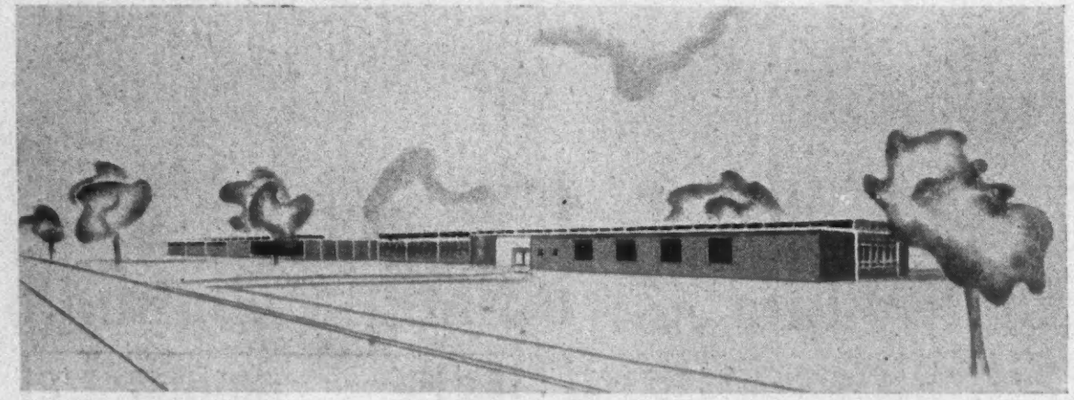
Mr. Allen developed the scientific aspect of the training and culture of the architect. His most important point was his suggestion that the essential aim of science training for architects should be the development of an instinct to relate every problem and every decision to the fundamental principles. He went on to point out that if training for post-war was considered specifically, the case for a scientific background was enhanced, since a designer so equipped was the only person able to improvise wisely with an inadequate, fluctuating supply situation such as we might have to face for some years after the war. In this connection the speaker discussed briefly and pointedly the vital place held in education by the course in building construction. He gave a warning on the use of current text-books on building construction, which he felt dealt inadequately with the principles of building and stressed the rule-of-thumb and the empirical method to such an extent that they tended to stultify inventiveness and thus to force upon the building industry a static condition instead of one of progressive development. He regretted it would not be right to discuss the findings of the Education Committee of the Architectural Science Group. In view of the immensity of its report, he expressed the hope that all would read it and put its suggestions in operation, so that experience could be gained upon which to base further progress.

Miss J. Blanco-White said it had been agreed that we had to replan our cities to allow good living and to be an actual and visual education for the people in them. Yet we knew that the difficulties to be broken through in this replanning were being increased from day to day as we failed to get a hold on current problems. It was in dealing with problems now that we began our post-war "reconstruction." Think of a new war-time problem—shelters. This made the architect face his real client—the people. At first the architect could only guess at the problem, the nature of air attack, and he could only theorise about the people's demands, either for privacy in "family" shelters or for comradeship in communal shelters. Then, with the raids, more accurate analysis was possible. The old controversies became indefensible. We knew now that shelters were to be used for many hours at a time and for feeding, sleeping and washing also—all familiar problems for architects. It was known how buildings collapsed, what casualties were caused. The structural solutions giving safety, economical equipment and comfort were limited, and could be shown clearly to the public. The designers now had a new aspect to face, that the smaller types and not the largest types of shelters were likely to be built, because the people and authorities wanting efficient shelters had only limited power. So, what training did architects need? To begin with, they must come to know their clients, the people. Also, they should learn to use vividly and intelligently the mass information and surveys which made a new part of their instructions. Building construction should mean working from principles, since for a long time now it would be analytical and experimental. The most useful text-books might be the war-time building bulletins of the B.R.S. Beyond this there was an æsthetic of apt and even witty solutions to these hard conditions which a student could develop with the same feeling as for all building. Models probably showed this more clearly than drawings.

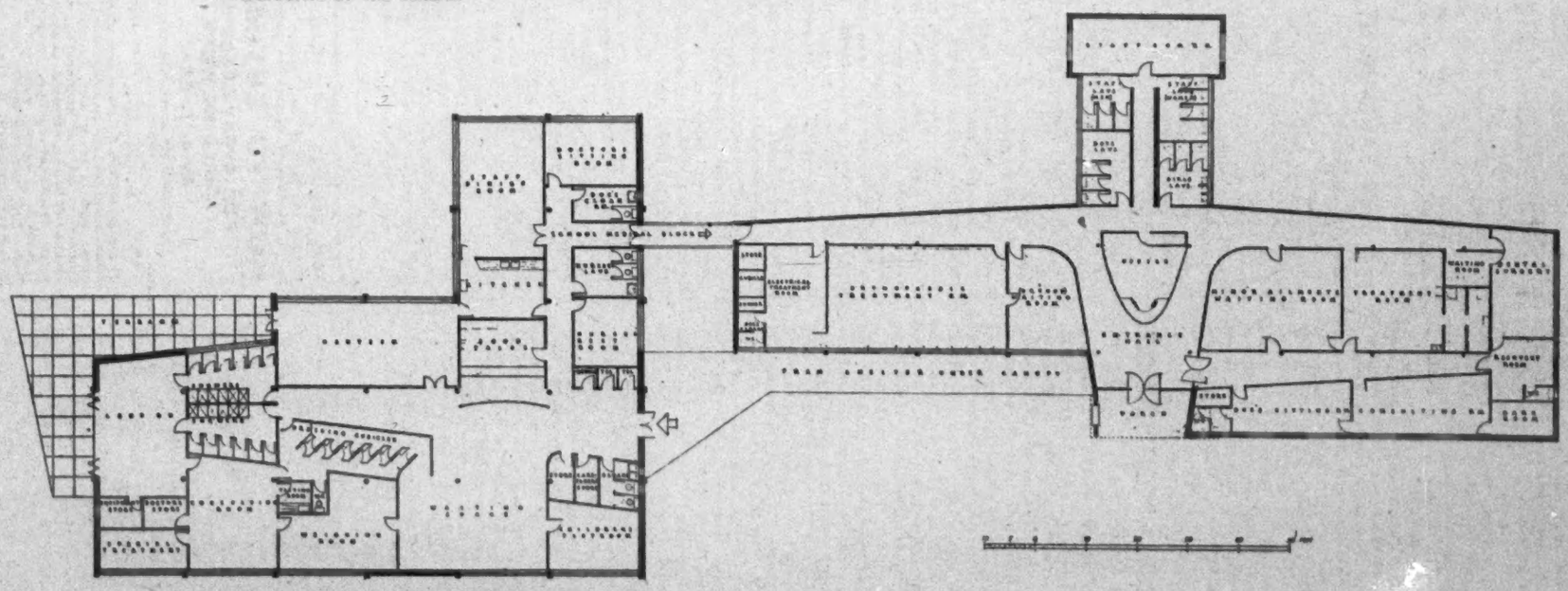
Miss Jane Drew felt that it was essential at this time to renew the activities of the R.I.B.A. Public Relations Committee, which had been disbanded since the outbreak of war. If a realistic permeation of society of the values that had been discussed was to be achieved, she felt that the session had over-emphasised the scientific and constructive aspect of training at the expense of the feelings. All worth-while activity has at root the element of passion and deep feeling.

DESIGN FOR A HEALTH CLINIC

BY MESSRS. DANIEL MIDDLEBROOK & KENNETH PASHBY
(Second Year, First Term Students of the Hull School of Architecture, Hull College of Art.)



PERSPECTIVE OF THE SCHEME.



MATERNITY AND CHILD WELFARE DEPARTMENT.

SCHOOL MEDICAL BLOCK.

Mr. B. A. Le Mare said Miss Blanco-White made the important suggestion that the architect must always be in close contact with the common people, and therefore architectural education must be so arranged that the student could work with the people by co-operative research into the actual needs of the people and for the people by synthetising his research with the theoretical impositions of the specialist architect and the lack of education and means of expresion of the people.

Capt. Maxwell Fry, in summing up, said there must be contagion before there was public enlightenment. Above all, the contagion of things well understood spread faster than we thought. It was a conference such as that which, although private in form, would ultimately bring fruit by the dissemination of ideas. The student of to-day should apply himself to research into the many social and technical aspects of his calling which should be brought to the test of collective discussion such as the conference had enjoyed that week-end.

ARCHITECTS' REGISTRATION COUNCIL

THIRTY-FIFTH ORDINARY MEETING.

THE 35th ordinary meeting of the Architects' Registration Council was held at 66, Portland-place, on December 13. Mr. Sydney Tatchell, F.R.I.B.A., occupied the chair.

Arising out of the minutes of the previous meeting, the Deputy-Registrar (Mr. H. W. Hunt) reported that a letter of reprimand had been sent to each of three individuals, as decided by the Council. Replies had been received, which, in the main, were quite satisfactory.

Mr. Hunt also referred to the case [the first under the Act] in which an auctioneer and surveyor had been prosecuted and fined for having carried on a business under the title of architect when not registered as such. A full report of the case would be found in *The Builder* and *The Estates Gazette*.

Arising out of the resignation of Mr. Anthony Minoprio from the position as Hon. Secretary of the Board of Architectural Education, it was reported that Mr. — White had been appointed Secretary to the Board of Architectural Education.

The Reports of Committee were then taken.

ADMISSION.—160 applications for admission to the Register were approved and 4 rejected. Under the 1938 Act and under Regulation 26 (2) and (5) 5,150 applications had been received, of which 2,460 had been dealt with.

PROFESSIONAL PURPOSES.—The Committee drew attention to two cases in which registered architects, or firms engaging them, had advertised services in the public Press. The explanations tendered had been accepted by the Committee.

FINANCE AND GENERAL PURPOSES.—219 persons were struck off the Register for non-payment of retention fees.

The Committee recommended that the "Gentlemen's Agreement" providing for the representation of the constituent bodies on the Board and the Committees of the Council during 1940-41 be adopted unaltered for 1941-42.

MAJOR G. B. J. ATHOE suggested, purely as a war-time measure that the Agreement be expanded a little, having regard to the difficulty of getting members to attend meetings in these times. He proposed that instead of leaving certain members to be freely chosen by the Council, the bodies themselves should nominate. MR. LESLIE HEAD seconded.

MR. A. H. MOBERLY pointed out that since the present system had been in operation, the whole procedure of the Council had worked smoothly and happily. To upset it might possibly lead to more difficulties and friction.

The amendment was lost, and the recommendation, on being put to the meeting, was carried.

The Committee reported that a joint committee of the Council and the Board of Architectural Education had been set up under the chairmanship of Mr. Sydney Tatchell to consider the question of concessions to students after the war. At the first meeting it was decided to ask schools for suggestions in connection with the matter. Replies had been received from approved schools and the R.I.B.A., and a further meeting would shortly be held to consider the suggestion.

In closing the meeting, the Chairman offered the thanks of the Council to the staff, "who through our troubled year have rendered splendid service under extremely difficult conditions."

IN PARLIAMENT

Cement for Shelters.

In the House of Lords, the BISHOP OF BIRMINGHAM complained that the Government's shelter policy had failed. Most of the brick shelters were damp, owing to the use of inferior materials. It was impossible to get cement. If adequate supplies of cement were forthcoming the brick surface shelters could no doubt we made dry if internal heating were applied, but they could not be safe. The Government should encourage local authorities to build shelters of the so-called Haldane type. Portland cement had been in the hands of a ring. The principal companies in the ring were prosperous. In early July the need for cement for home defence works and for air raid shelters was obviously about to become acute. On October 2, the chairman of Associated Portland Cement, which he understood was the chief constituent of the ring, said that all cement plants were operating to the fullest capacity, but he did not say that the closed plants were being reopened or that new plants were being established. Was there enough cement now available? Doubts remained. The annual output a year or two ago was some 9,000,000 tons. The 250,000 tons mentioned as being in stock by Mr. Hicks, the Parliamentary Secretary to the Ministry of Works and Buildings, on December 3, was only ten days' supply. For months action had been absolutely necessary. Most of the cement manufacture was concentrated in a few large and vulnerable plants. Was it true that more rapid action by the Government might have been prejudicial to the long-term interests of a powerful and wealthy monopoly?

The DUKE OF DEVONSHIRE, replying for the Government, said that from the point of view of safety the concrete and brick shelters had done extremely well. They had been very much less satisfactory in regard to comfort, dryness and freedom from noise. The Home Secretary was making every effort, in heavily raided areas, by the provision of bunking, heating and lighting, to make these shelters more comfortable and to increase their popularity. It was the competition for cement at the time of the threatened invasion which, more than any actual shortage, temporarily made distribution extremely difficult.

The position to-day was very much better, but he did not hold out any hope that the enormous quantities required to provide really safe shelters for the whole of the population in bombed areas were likely to become available. If they were available, it was doubtful whether the steel and labour necessary to erect could be supplied. To provide really safe shelters, something like one ton of cement per person would be required, and, under war conditions, that was out of the question. Short of that, the Home Secretary was pressing ahead, and by the end of the year, or very early in the New Year, the problem of sanitation in the tubes and tube shelters would have been solved. Bunks for 206,000 persons had been installed, and bunks for another 200,000 had been delivered to local authorities but not yet installed.

Blast-furnace Cement.

In the House of Commons, Mr. LAWSON asked the Parliamentary Secretary to the Ministry of Works and Buildings whether, arising out of his answer on December 3, in which he stated that the question of making provision for the manufacture of blast-furnace and other types of cement and for laying down additional plant was under active consideration, any further action had now been taken.

Mr. HICKS: Yes, sir. Since my reply to which reference has been made I have received the report of the Committee appointed by the Controller of Building Materials to report on the immediate manufacture of blast-furnace cement. Instructions have been given to certain cement works and iron works to instal the necessary plant for the manufacture of such cement, using all the most suitable slags available in the country. I am glad to say that my Ministry has been assured of the willing co-operation of all parties concerned. It is hoped that manufacture of the product will commence in time for the spring. At the same time steps have been taken to increase grinding capacity in certain works.

Of the two small works which are being brought back into operation, one is now structurally ready to start operating and the other will be so before the end of January of next year.

With regard to what I may call the longer view, that is to say, the promotion of new cement works that require the provision of new machinery and come into effect at a later date, my noble friend has accepted the recommendation of the Controller that an independent committee should be appointed to consider the whole matter fully.

Replying to further questions, Mr. Hicks said that hæmatite slag had had fantastic claims made for it, that less than 300,000 tons a year could be made available, that it was of low cementitious value, and that 600,000 tons of Portland cement would have to be withdrawn to make 300,000 tons of slag of any use at all.

Shelter Materials.

MR. J. HENDERSON asked the Parliamentary Secretary to the Ministry of Works and Buildings whether he had considered the resolution passed at a special Labour conference in Manchester to the effect that the urgency of further air-raid shelter construction necessitated the reserving of men engaged on this work, the granting of priority to shelter materials, such as steel, bricks, timber and cement, and the nationalisation of the cement and brick industries in order to provide more adequate supplies.

MR. G. HICKS replied that the Government had made clear its desire to press forward with the air-raid shelter programme to the maximum extent permitted by military and other considerations concerned with the war effort. While it was not possible to grant an overriding priority for shelters, large quantities of timber, steel, and brick were being made available, and there was no shortage of cement. The provision of adequate supplies for this particular work was not dependent on nationalisation of the cement and brick industries, which were already being controlled in the national interest.

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LARGE BUILDINGS IN WAR-TIME

OBSCURATION, VENTILATION AND PROTECTION FROM GLASS

HOME SECURITY BULLETIN C.13.

BULLETIN No. C.13, "Obscuration, ventilation and protection from glass in large buildings," has now been issued by the Ministry of Home Security (Research and Experiments Department).

The contents are sectionised as follows :—

INTRODUCTION : 1. General aims. 2. The effects of high-explosive bombs.

OBSCURATION : 3. Importance of good working light. 4. Factors governing design. 5. Methods of obscuration and treatments for glass. Table 1, Controllable obscuration. Table 2, Permanent obscuration. Table 3. Protection from flying glass.

VENTILATION : 6. General. 7. Ventilator light-traps.

CAMOUFLAGE : 8. Camouflage requirements and obscuration.

APPENDICES : 1. Table of values of illumination. 2. Details of practical methods of obscuration. 3. Ventilator light-traps.

The Bulletin (from which extracts are given) covers not only obscuration, *i.e.*, prevention of the emission of light from buildings during black-out hours, but also the treatment of windows and other openings to provide :—(a) adequate natural light; (b) reasonable ventilation in the black-out; (c) protection from flying and falling glass; (d) protection from weather, if glass is broken; and (e) maintenance of the black-out if glass is broken.

The aim is to maintain a high standard of efficiency in buildings, notwithstanding war restrictions.

The Effects of High-explosive Bombs.

Air attack affects all the problems of obscuration. Its effects are described in A.R.P. Handbook No. 5, "Structural Defence," and a summary is given in A.R.P. Memorandum No. 12, "Protection of Windows in Commercial and Industrial Buildings." The protection of glazed openings can be considered under two heads—namely, "Near (intense) effects" and "Distant effects."

"*Near Effects.*"—Protection against "near effects" is dealt with in A.R.P. Memorandum No. 12. Glass of normal commercial thickness, whether sheet, plate or wired, is likely to be broken by blast within about 200 ft. from a bomb, and the only way to avoid risk of such damage is to remove the glass. If the opening is to be maintained, glass may be replaced by a flexible substitute.

"*Distant Effects.*"—Beyond about 200 ft., the chance of breakage depends on the size and kind of bomb, and on factors such as the strength of the glass, its fixing and size, and the degree of protection afforded by adjacent walls, etc. Much more glass is likely to be subjected to "distant effects" than to "near effects," and the problem of providing against such effects is concerned with : (a) protection (of plant and products, etc.) from weather, after glass is broken, *i.e.*, the maintenance of the use of the building; (b) maintaining obscuration when glass is broken; and (c) protection from flying and falling glass.

The Bulletin covers in some detail the subjects of obscuration and ventilation. On the subject of camouflage it states :—

The glazing in factory roof lights or in windows may need camouflage, depending upon the nature of the building and its surroundings. In certain built-up areas, no treatment may be required, but for large factories in suburban or rural areas it is often necessary to carry out extensive camouflage.

The camouflage may be paint on the glass or the outer surface of external shutters, an "anti-shine" preparation applied to the outer surface of the glass, or nets. Nets suspended horizontally from ridge to ridge of a saw-tooth roof cut off some light from the vertical or steeply sloped north-lights; the standard net may cut off about 30 per cent. of the daylight through the window it shields. Nets from the eaves similarly cut off light which would otherwise enter the factory through vertical glazing in the walls. Anti-shine treatment prevents "glare" from the surface of the glass, and is used on sloping roof-glazing. This may reduce the amount of light that can be transmitted as much as 40 per cent. or more, even when the glass is clean, and as the roughened surface tends to collect dirt, the loss of light may become much higher.

Vertical glass appears dark from the air and need only be painted to continue the camouflage pattern, and not as a protection against shine. Such painting may be in stripes of varying proportions dependent on the colour, and this system will only result in a loss of daylight of from 5—50 per cent.

If paint, anti-shine treatment or nets are used, and the natural lighting conditions within the factory are to be adequate, a larger area of glazing must be provided than would otherwise be the case. This affects the design of new factories, and in an existing factory limits the amount of glass which can be permanently obscured, *e.g.*, by bitumen fabric or other coatings or by glass replacement.

Although in theory quick-closing external shutters should render any treatment of glass against shine unnecessary, in practice reliance cannot be placed on the receipt of a warning before the factory can be seen by enemy aircraft. If external shutters are used, it is still therefore considered desirable that steps should be taken to prevent shine from the roof glass.

Following Appendix 1—a Table of values of illumination issued by the Illuminating Engineering Society—comes Appendix 2, Details of Practical Methods of Obscuration.

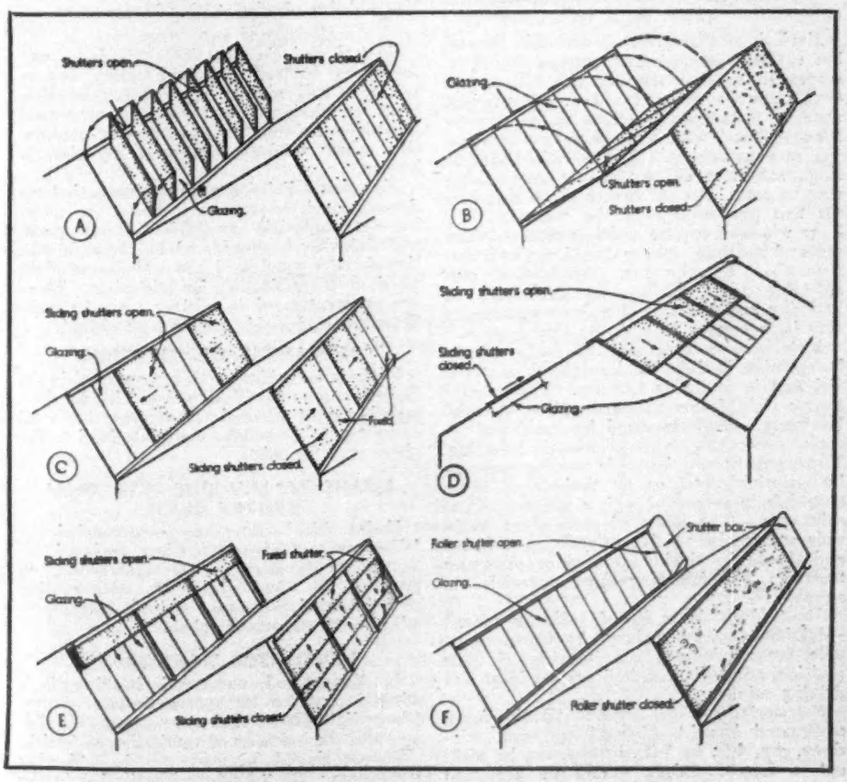
Controllable Obscuration.

(1) EXTERNAL SHUTTERS (FIGS. 1A—F) (DIAGRAMMATIC ONLY).

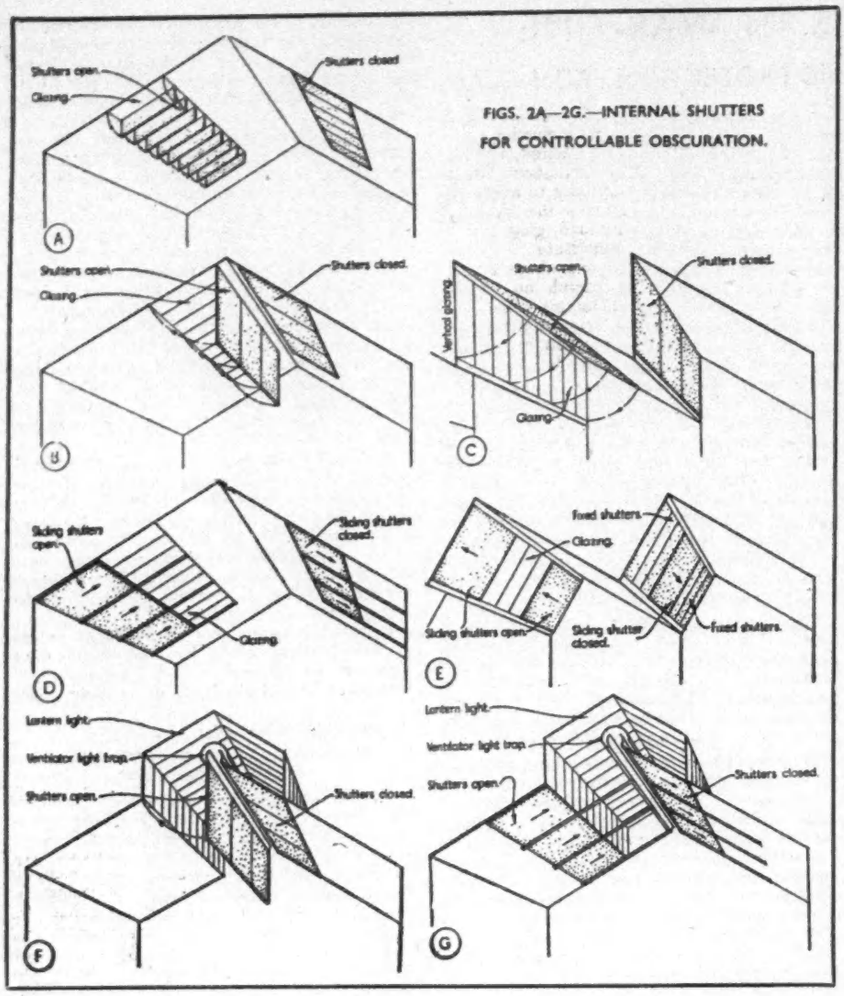
Control and Construction.—Movable shutters may be in panels hinged to flap or to slide or to fold so that they can be moved away from the glazing. Care must be taken to design for wind pressure, particularly if the system adopted has panels which, in operation, rise off the roof. Gearing for control should be so arranged that the greatest possible area of shuttering will operate as a unit. This applies particularly should hand operation be decided upon. Frequent operation at least twice daily involves a considerable amount of labour, and, in addition, there is the difficulty of satisfactory disposal of the cords or chains if there are many points of control. Owing to the risk of breakdown, there should not be complete reliance upon electric motors for moving shutters.

Weatherproofing and Drainage.—Systems of this type must be designed to throw off water. This should present no difficulty and may be done by means of flashings and gutterings as in permanent roof structures, such as skylights, dormer windows, etc.

Materials for Framing.—If timber or steel is used, strict economy must be exercised by making the most of scantlings available and using the minimum sizes compatible with strength and durability. Light pressed steel framing may often be used. For panels, there are a number of materials and combinations of materials that should be available. Sheet metals such as corrugated sheet steel or zinc may be used. If necessary, these may be stiffened with ribs or corrugations and the edges may be folded to form frames. Thin sheet metal may be backed with fabric or faced with asbestos and the whole covered in bituminous emulsion or with materials such as wall-board or building board. (In these combinations of materials care must be taken to make the panels water-resisting, particularly at the edges.) Building board of the dense pressed variety about $\frac{1}{16}$ in. thick may be used, and this should be painted or otherwise treated to resist weather and the edges should be protected. Asbestos cement sheeting, either plain or corrugated, may be used, but should be adequately framed to give greater resistance to wind pressure. Impregnated roofing felt reinforced with wire netting to strengthen it against the effects of explosion may be made up in panels with timber framing. It must be realised that the



FIGS. 1A—1F.—EXTERNAL SHUTTERS FOR CONTROLLABLE OBSCURATION.



FIGS. 2A—2G.—INTERNAL SHUTTERS FOR CONTROLLABLE OBSCURATION.

more brittle materials, such as cement-asbestos sheeting, are nearly as vulnerable to blast and flying debris as is roof glazing.

(2) INTERNAL SHUTTERS (FIGS. 2A—2G) (DIAGRAMMATIC ONLY).

Control and Construction.—See External Shutters.

Weatherproofing and Drainage.—If systems of this type are intended to remain weather-proof after fracture of the glass, internal guttering must be provided.

Materials.—For internal shutters the question of protection against flying and falling glass must be considered. Most sheet materials of weather-resistant character will resist glass splinters projected with violence, provided that they are strong enough to resist blast. Fabric materials cannot, however, be relied upon to stop glass fragments. Suitable materials which should be available include :—

Perforated thin sheets of metal backed with fabric or other suitable material impregnated to resist water, the whole being thick enough to obscure light; wall-boards or building boards impregnated with creosote or similar treatment to resist weather; fabrics of the canvas or tarpaulin type; and various sheet materials of the insulating type, if impregnated or painted to resist water. Some of these may also need to be combined with fabric. Sheet materials generally used for quite different purposes may be available and economical to use. Flooring material, for instance, such as linoleum and matting of the grass or fibre variety. The latter will need impregnating or painting to resist water, and should be reinforced with wire netting to avoid risk of being penetrated by glass splinters.

(3) INTERNAL LIGHT-WEIGHT SCREENS. (FIGS. 3A, B, C).

Methods of Fixing.—It is desirable that all but the lightest unframed screens should be suspended so that they do not fall to the floor when thrown out by blast. This is best done by fastening the screen to the window head or lintel with a shock-absorbing material such as rubber. Wide elastic bands or rings cut from old motor-tyre inner tubes may be used. Special rubber shock-absorbers for this purpose are on the market. Very large windows require multiple screens. The units of multiple screens should not be larger than about 6 ft. by 4 ft. Windows of considerable area will present difficulties of handling and fixing, and permanent framing may be necessary to hold the screen units.

Materials.—Screens may be made of any inexpensive flexible, light-weight sheet material that is not liable to warp. They should have a light frame unless the sheet material is strong enough to stand by itself and remain serviceable with continual handling. These screens may be made weather-resisting by painting them or by the use of sheet materials impregnated with a water-repellent substance. The edges of some sheet materials are specially liable to soak up moisture and should be thickly painted or otherwise treated. The following sheet materials are suitable :—

Stout Kraft Liner Board. (Strong paper.)—Minimum thickness should be .016 in. Suitable for windows which, because of their position, are well protected against blast and driving rain.

Corrugated Fibreboard. (Double-faced corrugated board.)—If used on small windows, say, 4 ft. by 2 ft., or less, can be without a frame. Edges should be protected with paper stuck on before painting.

Solid Fibreboard. (Thick cardboard.)—Either a strong container board or chip board.

Wall-board or Building Board.—Either the soft insulating board about ½ in. thick or the dense pressed board about ¼ in. thick. The latter is preferable. Can be used without frames on small windows.

Plywood.—Is liable to warp unless framed. Any grade is suitable.

Wire Netting and Fabric.—A strong fabric, dense enough to obscure, and preferably weatherproofed, used in connection with a wire netting screen.

Box Shooks. (Very thin board.)—Since these are available at low cost in small sizes only, cross battens, or a frame with cross members, are necessary.

Thin Metal Sheets.—Suitable, in principle, where weight is not excessive. Perforated thin sheets of metal may be used, but will require fabric backing for weather resistance and obscuration of light.

Bituminous Sheeting.—Any stout roofing felt that offers good resistance to tearing. Some forms are now available reinforced with wire netting. Should be well supported in frames by cross members. Linoleum may be similarly used.

Plasterboard.—The plaster core is brittle and the board should preferably be supported in frames. If used externally, the board must be protected against moisture, particularly at the edges. Specially suitable where non-inflammability is important. An asbestos board containing at least 50 per cent. of asbestos is an alternative. The wooden frame should be coated with a fire-retarding paint, the whole having a fire resistance of at least half an hour.

Fire-resisting Sheet Material.—Thin metal sheets perforated and backed on each side with asbestos are obtainable. Any necessary framing must be fire-resisting where non-inflammability is required.

Insulating Boards.—Some may be too expensive. With these may be considered boards of rushes pressed together and held with wire. Edges may need protecting with fabric.

Matting of the grass or fibre variety, if obtainable and if economical. These must be dense enough for obscuration and may need binding at edges and where fixed to frames. The addition of wire netting is necessary.

(4) BLINDS AND CURTAINS.

Control and Construction.—Blinds or curtains may be made in the ordinary way to roll up or pull aside for day-lighting, but they must be designed to overcome movement caused by air currents and affecting obscuration when windows are open or glass is broken.

Materials.—Fabrics must be chosen that are dense enough to obscure. There are many low-cost materials available. Some paper materials may be considered for use as blinds, though they may need the addition of light wood or other slatting for stiffening. There are papers treated in various ways to make them tough, foldable and water-resistant.

PERMANENT OBSCURATION.

Methods for achieving this, mentioned in the Bulletins, are : (1) Glass replaced by weather-resisting sheet material; (2) shutters (external or internal); (3) opaque materials fixed to the glass; and (4) paint.

MEANS TO MINIMISE RISK FROM BROKEN GLASS.

Under this heading are recommended the following methods : (1) Glass replaced by translucent flexible glass substitute; (2) glass replaced by wired glass; (3) wire netting placed behind the glass; and (4) anti-scatter adhesive treatments for glass.

VENTILATOR LIGHT-TRAPS.

In Appendix 3, under this heading, it is advised that for further particulars of ventilator light-traps, their adaptation to buildings and the influence of ventilation on health, reference should be made to the following documents : (1) "Factory Ventilation in the Black-out" (H.M.S.O., price 3d.); (2) Indus-

trial Health in War" (H.M.S.O., price 6d.); (3) "Ventilation in the Black-out" (H.M.S.O., price 2d.); and (4) British Standards Specification BS/ARP.31, "Ventilation for Buildings in Conditions of Black-out" (The British Standards Institution, 28, Victoria-street, London, S.W.1, price 6d., post free 8d.).

There are numerous devices on sale which conform more or less with the principles and recommendations set out. These include simple air-bricks (which sometimes require shielding to prevent light leakage), patent ventilators of inexpensive design, louvre type ventilators and specially designed ventilator light-traps (removable and fixed). Some of these devices are specially designed to combine with other black-out precautions. Electrically-driven fans fitted with light-trap devices are also on the market.

When choosing proprietary devices, careful consideration should be given to requirements set forth in this bulletin.

A number of typical examples of devices are given as guides for dealing with the more common problems met with in arranging natural ventilation in the black-out. The principle of the light-trap is given in Figs. 4a, 4b and 4c. Type A, it is stated, has, perhaps, the most general application; the sizes of the baffles must be adjusted, depending on the positions of the sources of illumination. Type B can be used without reference to the position of the sources of illumination, and it offers little obstruction to the flow of air. Unless made to be removable, it is liable to cut off a certain amount of daylight. Type C is primarily intended for incorporation in light-weight screens, but there are a number of other applications of this principle.

N.B.—The interior of light-traps must have a surface equivalent to that obtained by a proper coating of *matt black* paint.

Copies of the Bulletin may be obtained on application to the Ministry of Home Security (R. and E.), Princes Risborough, Bucks.

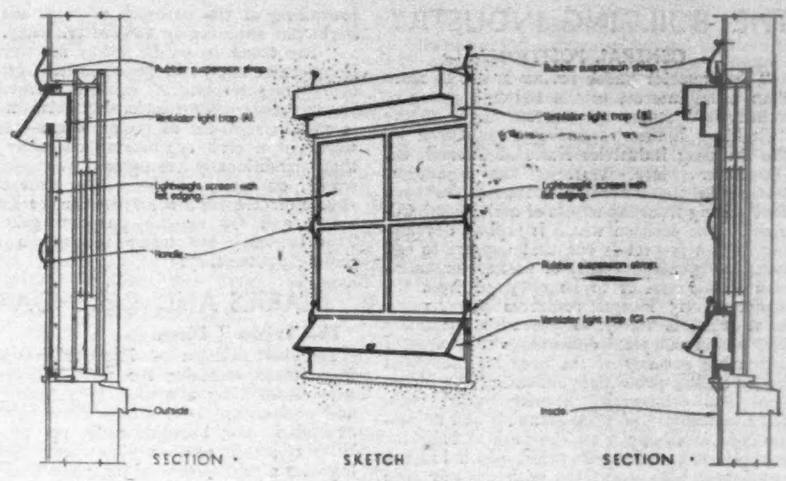
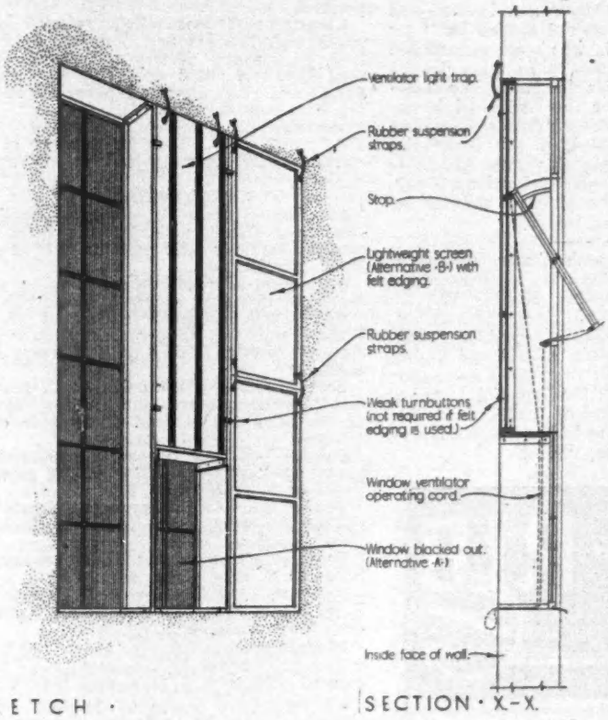


FIG. 3A.



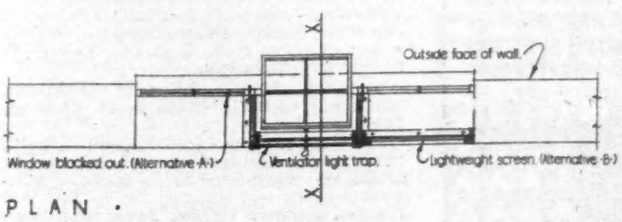


FIG. 3C.

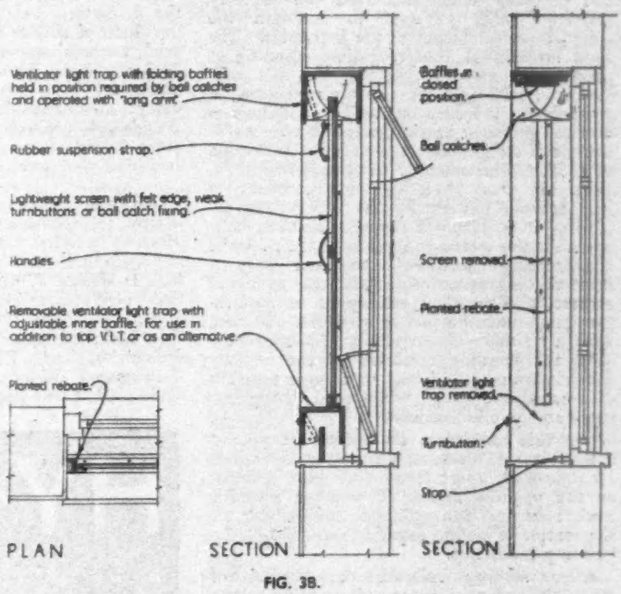
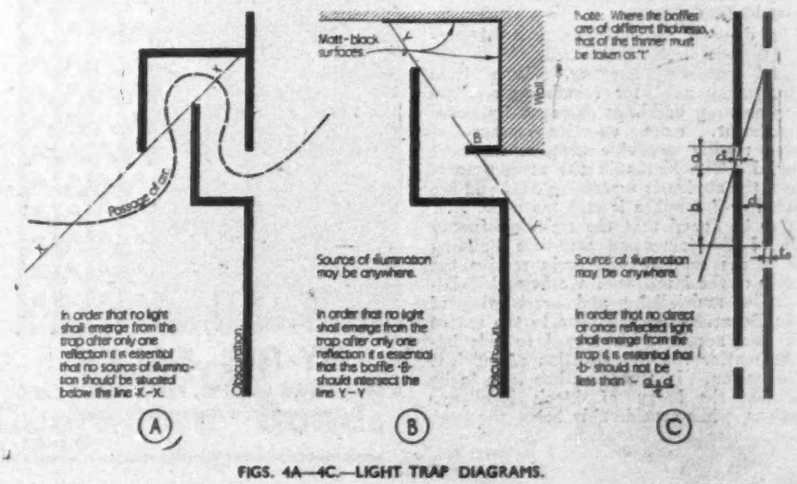

Ventilator light trap with folding baffles held in position required by ball catches and operated with "long arm"
Rubber suspension strap
Lightweight screen with felt edge, weak turnbuttons or ball catch fixing
Handles
Removable ventilator light trap with adjustable inner baffle. For use in addition to top V.L.T. or as an alternative
Planted rebate
PLAN
Baffles in closed position
Ball catches
Screen removed
Planted rebate
Ventilator light trap removed
Turnbuttons
Stop
SECTION
SECTION

FIG. 3B.

FIGS. 3A—3C.—INTERNAL LIGHT-WEIGHT SCREENS.


Passage of air
In order that no light shall emerge from the trap after only one reflection it is essential that no source of illumination should be situated below the line X–X.
Obstruction
A
Matt-black surfaces
Wall
B
Source of illumination may be anywhere.
In order that no light shall emerge from the trap after only one reflection it is essential that the baffle -B- should intersect the line Y–Y
Obstruction
B
Note: Where the baffles are of different thickness, that of the thinner must be taken as "t"
Source of illumination may be anywhere.
In order that no direct or once reflected light shall emerge from the trap it is essential that -b- should not be less than
C

FIGS. 4A—4C.—LIGHT TRAP DIAGRAMS.

THE BUILDING INDUSTRY

GENERAL POSITION.

"The quarter under review is one of more than usual interest to the building group of industries," states the current issue of the "Building Industries Survey," published by the Building Industries National Council, 85, Gloucester Place, W.1. "The significant feature in the sources of demand has been that arising from the effects of aerial bombardment. The position which is rapidly developing in this respect is one that appears to call for some greater measure of positive organisation if the best is to be obtained from the comparatively meagre resources now free to meet what is likely to prove an unusually heavy and complex demand. The steadily increasing urgency of the need for more and better shelter protection, rehousing and industrial and commercial accommodation calls for a conception of wide planning and organisational forethought on the part of both the authorities and the industries, which has not previously been associated with the war time and civil building needs of the country. The necessary mutual efforts to organise the potential demands under this head can be fully reconciled with the need to maintain the complete independence of the industries. The need for mutual comprehensive planning is made even more urgent by the Bill now before Parliament for placing a scheme of compulsory insurance against air-raid damage to fixed property on the Statute Book: which scheme is on precisely the lines recommended to H.M. Government by the Council in June, 1939. It must obviously be a corollary to any scheme having for its object the replacement of damaged property to have early available the means of replacement. . . . Until the building industries have been brought into working relationship with the proposed scheme, the practical efficacy of its application must remain a matter of doubt. To float such a scheme without effective co-ordination with the building resources of the country will almost certainly lead to a large measure of frustration, waste, widespread disappointment and public discontent.

"In this connection the recent creation of a Ministry of Works and Buildings may well be welcomed, apart from other good reasons, as the possible means of realising a much more scientific and economic relationship in the matter of public expenditure through the building industries."

After making reference to control of materials and the system of licensing buildings, the statement adds:—"The state of employment can no longer be commented upon, since the figures of unemployment are not now available. . . . The decision to stop the publication of the numbers of unemployed is greatly to be deplored. Such figures were the basis of much constructive criticism of departmental policy and administration, the sole means the public have of maintaining and stimulating administrative efficiency. . . . The position thus created calls for early reconsideration with a view to placing the fullest possible information at the disposal of those concerned with the possibilities of war-time trade development.

"The demand for building material supplies has been well maintained. With the enhanced demands, however, arising from the increasing need for rebuilding and repairing existing buildings damaged by aerial bombardment, more effective means of assuring readily available supplies must be instituted. The hiatus in the arrangements between the obviously increasing need and the availability of supplies is still too wide. . . . It is to be hoped that the materials supply aspect of the increasing war-time building needs of the country will early receive the attention of the Minister of Works and Buildings. The multiplicity and overlapping of insular Departmental activities to the extent which now applies with regard to this important matter are the negation of efficient administration. In the meantime it is to be noted that the index of Stock Exchange quotations, while considerably below the level prevailing at the outbreak of war, shows a slight but encouraging upward tendency.

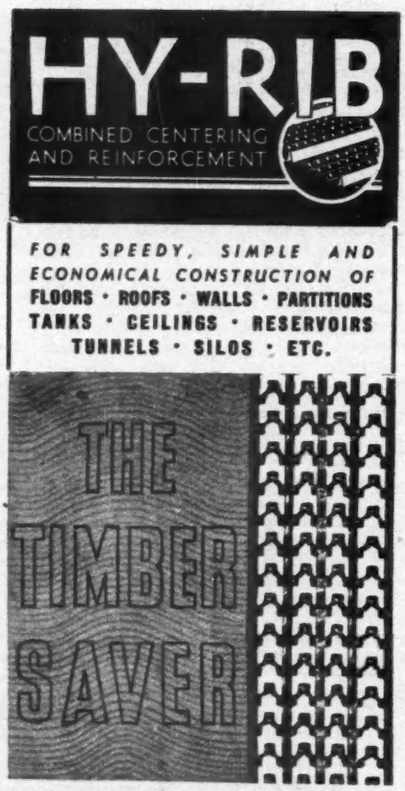
"The trend in public works activity continues to be but little distinguished from that of building works. A significant feature is the increasing inter-relationship between what is usually regarded as public works—that is, works of a civil engineering character—and that traditionally recognised as building works, on many of the larger contracts in course of construction for the Service Departments and for defence purposes generally. This tendency has many indications of a coming permanency."

DIARIES AND CALENDARS

"The Builder" Diary.

The 1941 edition of *The Builder* Diary, now issued, contains the usual diary space supplemented by a section of technical data and professional information which has been expanded and brought fully up to date. Within small compass has been brought together a vast amount of information of value to the architect, surveyor and builder—not least useful being a special section on "Air Raid Precautions," in which are summarised the protective measures to be taken in the provision of shelter for the public, for industrial workers and for the individual householder. Useful maps and a supply of squared paper are also included in this pocket-size diary, obtainable from the Publisher, *The Builder*, 4, Catherine-street, London, W.C.2, price 2s. 6d. (plus 4d. purchase tax), or 3s. inclusive post free.

We acknowledge with thanks receipt of diaries or calendars from Messrs. Rustoff and Hornsby, Ltd., Lincoln; Messrs. W. W. Sprague and Co., Ltd., Bread Street-hill, E.C.2; Messrs. J. Alfred Pratt and Co. (1928), Ltd., of Watford; Messrs. Ashwell and Nesbit, Ltd., Leicester; the Francois Cementation Co., Ltd., Doncaster; the Imperial Chemical Industries, Ltd., London, S.W.1; and *The Ironmonger* Diary and Hardware Buyers' Guide, 28, Essex-street, W.C.2.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A.R.P. SCHEMES

LONDON.

Erith.—Boro' Sur. received approval to following work: Concreting 300 Anderson shelters; erection of 11 surface shelters.—Contracts placed with Walter Smith (Public Works), Ltd., of Riverhead, at £261 2s. for 50-person shelter; Ben Holroyd and Sons, Ltd., for domestic shelters, and Ram and Austin, Ltd., for bunks.

Finsbury.—B.C. approved tender of Constable, Hart and Co., Ltd., for rendering waterproof shelters in northern area, at £4,645; 15,000 shelter bunks from Messrs. Sebel, at £11,750; £600 in respect of repairs to baths. Contractors are E. Pollard and Son, Ltd.; Ove N. Arup to prepare a scheme for adaptation of disused tube station and to obtain tenders for work; and Controller to negotiate with Lilley and Skinner, Ltd., for taking over of their private shelter as public dormitory shelter, and that Boro' Eng. be authorised to proceed with adaptation work.

Hayes (Middlesex). — U.D.C. approved shelter of cellular type to accommodate 500 persons.

Kingston-on-Thames.—T.C. placed contracts with Limpus and Son, W. H. Gaze, Ltd., Collins and Belbin, and Aubrey Watson, Ltd., for 1,198 domestic shelters, at £32,276 15s.—T.C. approved plans for shelter for Whitbread and Co.

Stepney.—B.C. received sanction from L.C.C. to borrow £8,355 for erection of decontamination stations and reconstruction of depots.

PROVINCIAL.

Atherton.—U.D.C. to erect a 28-person communal shelter and domestic brick surface shelters for 3,127 persons. Plans by F. L. Boydell, Sur.

Bebington.—T.C. to prepare plans for deep shelters. Plans by L. Birch, Boro' Sur.

Blyth.—T.C. accepted tenders of W. M. Wilson and Co., Cambois, Blyth, and J. Dover, Croft-rd., Blyth, for communal shelters.

Bromsgrove.—Worcestershire E.C. propose A.R.P. work at boys' and infants' departments, at a school, and shelters to other schools.

Coseley. — U.D.C. propose domestic communal shelters for additional 1,188 persons. Plans by G. E. Mitchell, Sur.

Denby Dale.—U.D.C. propose communal shelters on three sites. Plans by E. E. B. Harrison, Sur.

Eccles.—T.C. propose auxiliary fire station. Plans by T. Elce, Boro' Eng.

Hebburn.—U.D.C. accepted tender of J. M. Black, Jun., 161, Victoria-rd. West, for communal shelters.

Kidderminster.—T.C. to erect additional domestic communal shelters for 10,513 persons. Plans by J. Hawcroft, Boro' Sur.

Lichfield.—T.C. propose public surface shelters. Plans by L. Straw, City Sur.

Morpeth.—Contract for shelter schemes let to Jonathan Wilson, Oldgate.—R.D.C. accepted tender of M. B. Coxon, Broomhill, for shelter adaptations.

Nantwich.—R.D.C. to erect additional communal shelters. Plans by H. Crabtree, Eng. and Sur.

Newcastle-on-Tyne.—City Council to build tunnel shelters to accommodate 3,400 people, at £25,000.—Extensions to be made to basement shelter, and contract let to Tait and Holmes, Benwell Village, Newcastle.—Basement shelters to be built at a saloon in Shield-rd., and the premises of the Warwickshire Furnishing Co. Plans by Cecil Parr, City, E.—For shelters at an emergency hospital, T.C. placed contract with R. Gallacher, Ltd., at £4,170, and for same in Grainger Park-rd. with J. and W. Lowry, Ltd., at £176 10s.

Oadby. — U.D.C. propose communal shelters.

Oakham. — Rutland C.C. to erect seven public communal shelters.

Oldham.—T.C. received sanction of M.H. to borrow £48,000 for schools' shelters. Plans by G. E. Hardy, Boro' Eng.

Peterborough.—T.C. to erect public surface shelters. Plans by F. J. Smith, Boro' Eng.

Skelmersdale.—U.D.C. propose 75 48-person public shelters. Plans by E. S. Rosbotham, Sur.

Whitby.—U.D.C. to proceed with shelters on ten sites.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the head of paragraphs are those for the submission of tenders: a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING.

JANUARY 3.

Newry.—Alterations and additions to intermediate school, Downshire-rd. S. W. Reside, architect, Margaret-sq.

JANUARY 4.

Alnwick U.D.C.—Three small brick buildings to house chlorination plants and other works. Gladstone Beaty, Sur.

Glamorgan C.C.—Additions to Aberaman, Cadoxton, Barry, and Gorseinon police stations. D. J. Parry, Deputy Clerk, Glamorgan County Hall, Cardiff.

Newcastle-upon-Tyne Corporation. — Five brick surface air-raid shelters at Barrasford Sanatorium. City Architect, 18, Cloth Market.

Newmarket U.D.C.—Twenty brick-built communal domestic shelters. F. B. Waterfall, Sur., Godolphin House.

West Cumberland Joint Hospital Board.—Alterations at Ellerbeck Hospital, Workington. J. R. Cockfield, Clerk of Board, Council-cham., Cleator.

JANUARY 6.

Cambridge T.C.—Shelters at Station-rd and at Trumpington school. Boro' Sur.

Lincoln T.C.—Surface shelters to accommodate approximately 1,250 persons in units holding from 12 to 96 persons each. City Eng. and Sur. Dep. £1 1s.

Norwich T.C.—Surface shelters. City Eng.

Tottington U.D.C.—Communal shelters. L. Kenyon, Sur.

JANUARY 7.

Cork.—Demolition of premises at Meade-st., Cork, and erection and completion of workshop for Cross and Sons, Ltd., Sullivan's Quay. J. R. Boyd Barrett, chartered architect, 61, South-mall, Cork. Dep. £2 2s.

JANUARY 8.

Alton U.D.C.—Domestic shelters. W. Bradly Trimmer, Clerk.

JANUARY 9.

Erith T.C.—Central heating, hot-water services, shower fittings, etc., at new cleansing station. John H. Clayton, Boro' Eng. and Sur. Dep. £1 1s.

Stockport C.B.—Installing trough closets (water carriage system) to tunnel shelters, Brinksway. Wm. F. Gardner, M.I.Inst.C.E., Town Hall.

Yeovil R.D.C.—Pumphouse and other works. A. Wilson, Sur., 28, Kingston. Dep. £2 2s.

JANUARY 10.

Belper R.D.C.—2 chlorinator houses and incidental works for water supply scheme. A. H. S. Waters, Consulting Eng., 25, Temple-row, Birmingham, 2. Dep. £1 1s.

Shoreham-by-Sea U.D.C.—Air-raid shelters at John-st. and Ship-st. W. F. Andrews, architect, Bostel House, 37, West-st., Brighton.

Withernsea U.D.C. — Five communal shelters. C. G. J. Ratcliff, Sur. Dep. £1 1s.

JANUARY 11.

Eccles T.C.—Auxiliary fire station. Boro' Eng. and Sur. Dep. £1 1s.

Gravesend T.C.—Demolition and rebuilding portion of a school. Borough Architect, 5, Woodmille-ter.

JANUARY 13.

Abertillery U.D.C.—Seven surface brick shelters at school. A Gordon Jones, Eng. and Sur. Dep. £1 1s.

JANUARY 14.

Gravesend T.C.—Ground floor portion of new police headquarters and fire station. Borough Architect, 5, Woodville-ter. Dep. £3 3s.

JANUARY 16.

Dublin Corporation.—332 houses with estate office annexe on Cabra West housing estate. H. G. Simms, Housing Architect, 5, Wellington Quay. Dep. £5 5s.

JANUARY 25.

Millom R.D.C.—Filtering station, etc., for waterworks scheme. Taylor and Wallin, engineers, 1, Saville-pl., Newcastle-upon-Tyne, 1.

PAINTING, ELECTRIC LIGHTING, HEATING, &c.

JANUARY 7.

Birkenhead C.B.—Remodelling hot water supply system at Eastham House, Eastham. Public Assistance Officer, 3, Conway-st. Dep. £2.

Colwyn Bay T.C.—Painting of understructure of Victoria pier (paint supplied). N. S. Jeffrey, A.M.I.C.E., Boro'. Eng. and Sur.

JANUARY 20.

Leeds T.C.—Repairs on housing estates from Groups 1-7. R. A. H. Livett (A.), Housing Director, 26, Great George-st. Charge 5s.

MATERIALS.

JANUARY 6.

Belfast T.C.—Steel platforms, ladders and hand-rails, and concrete housings for fire hydrants. City Electrical Engineer and Manager, East Bridge-st.

JANUARY 13.

Ilkeston T.C.—Highway materials. A. O. Marshall, Boro' Sur. and Water Eng.

JANUARY 14.

Finsbury B.C.—Road materials. Boro' Eng.

JANUARY 25.

Stockport C.B.—Builders materials for Gas Dept. Sec., Gas Dept.

ENGINEERING, IRON AND STEEL.

JANUARY 6.

Enniskillen R.D.C.—2 small filters in connection with proposed new water supply for Lisbellaw. F. G. Townsend, E.

JANUARY 11.

Bashford R.D.C.—Washing, screening and replacement of filter media in two existing beds, with supply of new media; sundry other repairs to works; repairs to two cottages; painting to two cottages. Elliott and Brown, chartered civil engineers, Stanley House, Pelham-rd., Nottingham. Dep. £3 3s.

JANUARY 15.

Dublin T.C.—Reinforced concrete reservoir. City Eng., 28, Castle-st. Dep. £10 10s.

ROAD, SEWERAGE AND WATER WORKS.

JANUARY 6.

Middleton T.C.—Making-up Glebe-st. and Mount-rd. extension. J. Pollard, A.M.I. Struct.E., Boro' Eng. and Sur.

JANUARY 8.

Wetherby P.C.—Providing and laying about 180 yds. of 9-in. dia. concrete porous pipes and 100 yds. 6-in. dia., together with manholes and erection of 97 yds. concrete post and wire fence, at cemetery. F. J. Rodwell and Son, engineers, 20, Park Row, Leeds, 1. Dep. £1 1s.

JANUARY 9.

Rutland C.C.—Supply, laying and rolling of bituminous granite carpeting on 14,500 sq. yds. of Great North-rd., in northern area. County Sur., Northern Area, Catmose, Oakham.

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Public Appointments.

JANUARY 11.

***Fulham B.C.**—Depot Superintendent and Assistant Works Superintendent. W. Townsend, T.C.

CURRENT AND PROPOSED BUILDING WORK*

Accrington. — Committee of Y.M.C.A. acquired premises for canteen and recreation hall.

Aysgarth.—R.D.C. propose water sanitation scheme at a school.

Blackpool.—T.C. approved: Blackpool Tower Co., Ltd., alterations and additions; Ornstein and Massoff, Ltd., alterations; Bee Bee Biscuits, Ltd., addition; Waller and Hartley, Ltd., fire station.

Carlton.—U.D.C. approved 150 houses for Trent Concrete, Ltd.

Chadderton.—Council passed plans for extension of works and sanitary accommodation for Orb Engineering Works, Ltd.

Darlington.—T.C. approved: E. Minors, for A.R.P. Committee, decontamination laundry; G. R. Oliver, extensions to church, Ravensdale-rd.

Dewsbury.—T.C. approved: Alterations, Victoria Laundry, Hinchliffe's Victoria Laundry (Ravensthorpe), Ltd.; workshop and garage extensions, J. Kaye and Co., Midland Mills.

Dun Laoghaire.—Reconstruction on site of Pavilion, recently gutted by fire, already begun.

Durham.—C.C. to carry out repairs to 22 schools. Plans by F. Willey, County Architect, 34, Old Elvet, Durham.—Board of Education agreed to C.C.'s plan for completing additions to Peases West school.—M.H. sanctioned loans for various school works, at £31,489. Plans by County Architect.

Hemsworth.—R.D.C. received sanction to borrow £10,376 for fire and ambulance station.

Kingston-on-Thames. — T.C. approved: Rebuilding in Clarence-st. and rebuilding for Kingston Ice Works.

Leigh.—T.C. approved: Warehouse, Albion Builders' Supplies, Ltd., Canal Wharf.

Lichfield.—T.C. propose reinstatement of condemned houses. Plans by L. Straw, City Sur.

Middlesbrough.—North Riding Trust, Ltd., to carry out additions.—Plans approved for strong room at Teesside Bridge and Eng. Co.'s works.

Newark.—Council approved plans for alterations to Beaumond Cross House.

Oldham.—Alterations and improvements at Westhulme Hospital, which will involve an expenditure of £4,280, contemplated by Health Committee.

Oundle.—Nene Catchment Board propose concrete retaining wall and continuous flood bank. Sanction received for 12 more drainage schemes and 22 additional schemes.

Peterborough.—River Welland Catchment Board propose reservoir.

Rushden.—U.D.C. approved: Factory additions, John Cave and Sons.

St. Neots.—U.D.C. approved: Bakehouse, W. Eayrs.

Salford.—T.C. propose strengthening of roofs at hospital and sanatorium buildings. Plans by W. A. Walker, B.E.—Richard Haworth and Co., Ltd., propose alterations.

Shrewsbury.—T.C. propose reinstatement of 52 condemned houses.

Tynemouth.—T.C. propose to set up and equip feeding centres. Plans by D. H. O'Herlihy, Boro' Eng.

Urmston.—U.D.C. propose reinstatment of condemned houses. Plans by E. L. Leeming, Eng. and Sur.—U.D.C. approved laboratory to works, Geigy Colour Co., Ltd.; works extensions, Manchester Oil Co., Ltd.

Walsall.—T.C. propose conversion of public-house into offices, at £700, and alterations to Council House and Town Hall, at £350.

Walthamstow.—T.C. approved: Alterations, C. S. Constructions.

Weardale.—R.D.C. propose to improve water supply scheme at Stanhope Hall. J. R. Ridley, Sur.

* See also List of Contracts Open.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st DECEMBER, 1940

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]

	Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.
Aberavon	1/9½	1/4½	Clitheroe	1/9½	1/4½	Isle of Thanet	1/7½	1/3½	Saxmundham	1/6	1/2
Aberdare	1/9½	1/4½	Cobham (Surrey)	1/8½	1/4	Isle of Wight	1/7	1/2½	Scarborough	1/9	1/4½
Abergavenny	1/9½	1/4½	Colchester	1/9	1/4½	Keighley	1/9½	1/4½	Scunthorpe	1/9½	1/4½
Abingdon	1/8	1/3½	Colwyn Bay	1/8½	1/4	Kenilworth	1/9½	1/4½	Selby	1/9½	1/4½
Accrington	1/9½	1/4½	Congleton	1/9	1/4½	Kettering	1/9½	1/4½	Sevenoaks	1/8	1/3½
Aldeburgh	1/6	1/2	Coventry	1/9½	1/4½	Kidderminster	1/9	1/4½	Sheerness	1/7½	1/3½
Aldershot	1/8	1/3½	Cranbrook	1/7½	1/3½	King's Lynn	1/7½	1/3½	Sheffield	1/9½	1/4½
Alfreton	1/9½	1/4½	Cranleigh	1/7½	1/3½	Kirkham	1/9½	1/4½	Shipley	1/9½	1/4½
Alnwick	1/9	1/4½	Crawley	1/7½	1/3½	Knowle	1/9	1/4½	Shoeburyness	1/9	1/4½
Altrincham	1/9½	1/4½	Crewe	1/9	1/4½	Lancaster	1/9½	1/4½	Shoreham	1/8½	1/4
Amble	1/9	1/4½	Cromer	1/6½	1/2½	Leamington	1/9½	1/4½	Shrewsbury	1/9	1/4½
Amersham	1/8	1/3½	Crowborough	1/7½	1/3½	Leatherhead	1/8½	1/4	Sittingbourne	1/7½	1/3½
Ammanford	1/9½	1/4½	Cuckfield	1/7½	1/3½	Leeds	1/9½	1/4½	Skegness	1/8½	1/4
Andover	1/7½	1/3½	Darlington	1/9½	1/4½	Leicester	1/9½	1/4½	Sleaford	1/8	1/3½
Ardingley	1/7½	1/3½	Darwen	1/9½	1/4½	Leighton Buzzard	1/6½	1/2½	Slough	1/8½	1/4
Arundel	1/7½	1/3½	Daventry	1/8	1/3½	Letchworth	1/8½	1/4	Southampton	1/9	1/4½
Ascot	1/7½	1/3½	Deal	1/7½	1/3½	Lewes	1/7½	1/3½	Southend-on-Sea	1/9	1/4½
Ashby-de-la-Zouch	1/9½	1/4½	Denbigh	1/8½	1/4	Lichfield	1/8½	1/4	Southport	1/9½	1/4½
Ashford (Kent)	1/7½	1/3½	Derby	1/9½	1/4½	Lincoln	1/9½	1/4½	South Shields	1/9½	1/4½
Ashford (Middlesex)	1/9½	1/4½	Devizes	1/6½	1/2½	Littlehampton	1/7½	1/3½	Spalding	1/7½	1/3½
Ashington	1/9	1/4½	Dewsbury	1/9½	1/4½	Liverpool	†§1/11	¶	Stafford	1/9	1/4½
Ashtead	1/9½	1/4½	Didcot	1/7½	1/3½	Llandudno	1/8½	1/4	Staines	1/8½	1/4
Ashton-under-Lyme	1/9½	1/4½	Diss	1/6	1/2	Llanelly	1/9½	1/4½	Stamford	1/8½	1/4
Aylesbury	1/7½	1/3½	Doncaster	1/9½	1/4½	London—			Stevenage	1/8½	1/4
Aylsham	1/6½	1/2½	Dorchester	1/7	1/2½	12m. radius	*1/11	1/5½	Stockport	1/9½	1/4½
Bagshot	1/7½	1/3½	Dorking	1/8	1/3½	12-15 m. radius	*1/10½	1/5½	Stockton-on-Tees	1/9½	1/4½
Banbury	1/7½	1/3½	Dover	1/7½	1/3½	Long Eaton	1/9½	1/4½	Stoke-on-Trent	1/9½	1/4½
Barnsley	1/9½	1/4½	Dovercourt	1/7½	1/3½	Longton	1/9½	1/4½	Stourbridge	1/9½	1/4½
Barnstaple	1/7½	1/3½	Driffield	1/8	1/3½	Loughborough	1/9½	1/4½	Stourport	1/9	1/4½
Barrow-in-Furness	1/9½	1/4½	Droitwich	1/9	1/4½	Louth	1/8	1/3½	Stowmarket	1/6½	1/2½
Barry	1/9½	1/4½	Dudley	1/9½	1/4½	Lowestoft	1/7½	1/3½	Stratford-on-Avon	1/8½	1/4
Basingstoke	1/7½	1/3½	Dunstable	1/8	1/3½	Luton	1/9	1/4½	Stroud	1/8½	1/4
Bath	1/9	1/4½	Durham City	1/9½	1/4½	Macclesfield	1/9	1/4½	Sunderland	1/9½	1/4½
Batley	1/9½	1/4½	Eastbourne	1/8½	1/4	Maidenhead	1/8½	1/4	Sutton Coldfield	1/9½	1/4½
Beaconsfield	1/8	1/3½	E. Glam. (Mon.Val.)	1/9½	1/4½	Maidstone	1/8	1/3½	Swaffham	1/6	1/2
Beccles	1/6	1/2	East Grinstead	1/7½	1/3½	Malvern	1/8	1/3½	Swanage	1/7½	1/3½
Bedford	1/9	1/4½	Edenbridge	1/7½	1/3½	Manchester	1/9½	1/4½	Swansea	1/9½	1/4½
Berkhamsted	1/7½	1/3½	Ely	1/6½	1/2½	Manningtree	1/6½	1/2½	Swindon	1/8	1/3½
Berwick	1/9	1/4½	Epping	1/9½	1/4½	Mansfield	1/9½	1/4½	Tamworth	1/9	1/4½
Beverley	1/9½	1/4½	Exeter	1/9	1/4½	March	1/6½	1/2½	Taunton	1/8	1/3½
Bexhill-on-Sea	1/8	1/3½	Exmouth	1/8	1/3½	Margate	1/7½	1/3½	Tenterden	1/7½	1/3½
Bideford	1/7½	1/3½	Fakenham	1/6½	1/2½	Market Harborough	1/8½	1/4	Thames Haven	1/9½	1/4½
Biggleswade	1/7½	1/3½	Falmouth	1/8	1/3½	Matlock	1/8	1/3½	Thetford	1/7	1/2½
Billericay	1/7	1/2½	Fareham	1/8½	1/4	Melton Constable	1/6	1/2	Thorpe Bay	1/9	1/4½
Birchington	1/7½	1/3½	Faversham	1/7½	1/3½	Melton Mowbray	1/8½	1/4	Todmorden	1/9½	1/4½
Birkenhead	‡§1/11	¶	Felixstowe	1/8½	1/4	Merthyr	1/9½	1/4½	Tonbridge	1/8	1/3½
Birmingham	†1/9½	†1/4½	Filey	1/8	1/3½	Middlesbrough	1/9½	1/4½	Torquay	1/9	1/4½
Bishop Auckland	1/9½	1/4½	Fleetwood	1/9½	1/4½	Middleton	1/9½	1/4½	Totnes	1/7½	1/3½
Bishops Stortford	1/8½	1/4	Flint	1/9½	1/4½	Middlewich	1/9	1/4½	Trowbridge	1/6½	1/2½
Blackburn	1/9½	1/4½	Folkestone	1/7½	1/3½	Milford Haven	1/8	1/3½	Truro	1/7	1/2½
Blackpool	1/9½	1/4½	Frinton-on-Sea	1/7½	1/3½	Morecambe	1/9½	1/4½	Tunbridge Wells	1/8	1/3½
Blyth	1/9½	1/4½	Frome	1/6½	1/2½	Morley	1/9½	1/4½	Uppingham	1/8	1/3½
Bognor Regis	1/7½	1/3½	Gainsborough	1/8½	1/4	Mundesley	1/6½	1/2½	Uttoxeter	1/8	1/3½
Bolton	1/9½	1/4½	Gateshead	1/9½	1/4½	Nantwich	1/9	1/4½	Wakefield	1/9½	1/4½
Bournemouth	1/8½	1/4	Gillingham (Kent)	1/8½	1/4	Nelson	1/9½	1/4½	Walsall	1/9½	1/4½
Bracknell	1/7½	1/3½	Glossop	1/9½	1/4½	Newark-on-Trent	1/9	1/4½	Walsden	1/9½	1/4½
Bradford	1/9½	1/4½	Gloucester	1/9	1/4½	Newbury	1/7½	1/3½	Walton-on-Naze	1/7½	1/3½
Bradford-on-Avon	1/6½	1/2½	Godalming	1/7½	1/3½	Newcastle-on-Tyne	1/9½	1/4½	Ware	1/9	1/4½
Braintree	1/7½	1/3½	Goole	1/9½	1/4½	Newcastle-u.-Lyme	1/9½	1/4½	Warminster	1/6½	1/2½
Brentwood	1/9	1/4½	Gosport	1/9	1/4½	New Forest	1/7½	1/3½	Warrington	1/9½	1/4½
Bridgwater	1/8	1/3½	Grantham	1/8½	1/4	Newmarket	1/7½	1/3½	Warwick	1/9½	1/4½
Bridlington	1/9	1/4½	Gravesend	1/9	1/4½	Newport, Mon.	1/9½	1/4½	Wellingborough	1/9	1/4½
Brighouse	1/9½	1/4½	Great Yarmouth	1/7½	1/3½	Newport Pagnell	1/7½	1/3½	Welwyn	1/8½	1/4
Brighton	1/8½	1/4	Grimsby	1/9½	1/4½	Northampton	1/9½	1/4½	Welwyn Gar. City	1/9½	1/4½
Bristol	1/9½	1/4½	Guildford	1/7½	1/3½	Norwich	1/9½	1/4½	Wells (Norfolk)	1/6	1/2
Broadstairs	1/7½	1/3½	Guisborough	1/8	1/3½	Nottingham	1/9½	1/4½	West Bromwich	1/9½	1/4½
Bromsgrove	1/9	1/4½	Halifax	1/9½	1/4½	Nuneaton	1/9½	1/4½	Westcliff-on-Sea	1/9	1/4½
Buckley	1/9½	1/4½	Hanley	1/9½	1/4½	Oakham	1/8	1/3½	Weston-super-Mare	1/8½	1/4
Bungay	1/5½	1/1½	Harpenden	1/8½	1/4	Oldham	1/9½	1/4½	Weybridge	1/8½	1/4
Burnham-on-Crouch	1/6	1/2	Harrogate	1/9½	1/4½	Ormskirk	1/9½	1/4½	Weymouth	1/7½	1/3½
Burnley	1/9½	1/4½	Hartlepools	1/9½	1/4½	Oxford	1/9	1/4½	Whitby	1/8½	1/4
Burslem	1/9½	1/4½	Harwich	1/7½	1/3½	Oxted	1/8	1/3½	Whitstable	1/7½	1/3½
Burton-on-Trent	1/9½	1/4½	Haslemere	1/7½	1/3½	Paignton	1/9	1/4½	Widnes	1/9½	1/4½
Bury	1/9½	1/4½	Hastings	1/7½	1/3½	Peterborough	1/9	1/4½	Wigan	1/9½	1/4½
Bury St. Edmunds	1/7	1/2½	Hatfield	1/9	1/4½	Plymouth	1/9½	1/4½	Wigton	1/8	1/3½
Buxton	1/9	1/4½	Haywards Heath	1/7½	1/3½	Pontefract	1/9½	1/4½	Willington	1/9½	1/4½
Byfleet	1/8	1/3½	Hednesford	1/9	1/4½	Pontypridd	1/9½	1/4½	Wilmslow	1/9½	1/4½
Cambridge	1/9½	1/4½	Hemel Hempstead	1/8½	1/4	Port Talbot	1/9½	1/4½	Winchester	1/8	1/3½
Canterbury	1/7½	1/3½	Henley-on-Thames	1/7½	1/3½	Portsmouth	1/9	1/4½	Windermere	1/8	1/3½
Cardiff	1/9½	1/4½	Hereford	1/7½	1/3½	Preston	1/9½	1/4½	Windsor	1/8½	1/4
Carlisle	1/9½	1/4½	Herne Bay	1/7½	1/3½	Pulborough	1/7½	1/3½	Wisbech	1/7	1/2½
Carnforth	1/9½	1/4½	Hertford	1/9	1/4½	Ramsgate	1/7½	1/3½	Witham	1/7½	1/3½
Castleford	1/9½	1/4½	Heysham	1/9½	1/4½	Reading	1/9	1/4½	Woking	1/8	1/3½
Caterham	1/9½	1/4½	Hitchin	1/8½	1/4	Redditch	1/9	1/4½	Wokingham	1/7½	1/3½
Chard	1/6½	1/2½	Hoddesdon	1/9	1/4½	Redhill	1/8	1/3½	Wolverhampton	1/9½	1/4½
Chatham	1/8½	1/4	Holt (Norfolk)	1/6	1/2	Ripon	1/8	1/3½	Woodbridge	1/7	1/2½
Chelmsford	1/9	1/4½	Horley	1/7½	1/3½	Rochdale	1/9½	1/4½	Worcester	1/9	1/4½
Cheltenham	1/8½	1/4	Horsham	1/7½	1/3½	Rochester	1/8½	1/4	Workington	1/8	1/3½
Chepstow	1/9	1/4½	Horwich	1/9½	1/4½	Rugby	1/9½	1/4½	Worksop	1/9	1/4½
Chertsey	1/8½	1/4	Huddersfield	1/9½	1/4½	St. Albans	1/9	1/4½	Worthing	1/7½	1/3½
Chester	1/9½	1/4½	Hull	1/9½	1/4½	St. Helens	1/9½	1/4½	Wrexham	1/9	1/4½
Chesterfield	1/9½	1/4½	Hunstanton	1/6½	1/2½	St. Neots	1/7	1/2½	Wroxham	1/7	1/2½
Chichester	1/7½	1/3½	Huntingdon	1/7	1/2½	Saffron Walden	1/6½	1/2½	Wycombe	1/8½	1/4
Chorley	1/9½	1/4½	Ilfracombe	1/7½	1/3½	Salisbury City	1/7	1/2½	Wymondham	1/6½	1/2½
Cirencester	1/7	1/2½	Ingatestone	1/8	1/3½	Salisbury Plain	1/8½	1/4	Yeovil	1/8	1/3½
Clacton	1/7½	1/3½	Ipswich	1/9	1/4½	Sawbridgeworth	1/8	1/3½	York	1/9½	1/4½
Cleveleys	1/9½	1/4½									

* Painters 1d. less than other Craftsmen. † Plus 2d. per working day. ‡ Plasterers 1/11½

¶ Tradesman's Labourers, 1/5½. Navvies and General Labourers 1/4½.

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

For Building Trade Wages in Scotland, see page 20

PRICES CURRENT OF MATERIALS*

Note: Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry. The prices for soft woods are for cash on delivery, and are subject to adjustment when the increased price of £22 per standard for national released stocks is finally fixed.

At present linseed oil and genuine spirits of turpentine can only be supplied in cans in small quantities.

BRICKS, &c.

Delivered to site, City and Central Area, Full Lorry Loads. £ s. d.
Best Stocks 4 18 0
Second Hard Stocks 4 11 0

Per 1,000. Delivered at London Goods Stations.

2½ in. Phorpres. A discount of 6d. 1,000 only monthly account.	King's Cross Station per 1,000. s. d.	To sites in W.C. District. per 1,000 s. d.
Pressed	51 9	58 3
Keyed	53 9	60 3
Single Bullnose	71 9	78 3
Rustics	71 9	78 3
Whites	72 3	78 3

	£ s. d.
Wh'te Midhurst Facing Bricks (delivered London site)	3 12 6
Best blue Pressed Staffs. (London Stns.) ...	8 18 0
Do. Bullnose (London Stns.)	9 8 0
Blue Wire Cuts (London Stns.)	7 15 6
Best Stourbridge Fire Brick (London Stns.):— 2½ in. ..... 8 0 0 3 in.	9 15 0

GLAZED BRICKS. (London Stns.)			
Best White Ivory and Salt Glazed Stretcher.	25 0 0	D'ble Str'tch'rs .. D'ble Headers .. One side & two ends	34 10 0 31 10 0 35 10 0
Headers	25 10 0	Two sides & one end	36 10 0
Quoins, Bullnose and 4½in. Flats	32 10 0	Splays and Squints	34 0 0

Second Quality, £2 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

2" per yd. sup. ..	2 3	3" per yd. sup. ..	2 9
2½ " " ..	2 6	4" " " ..	3 1

CLINKER CONCRETE.

2" per yd. sup. ..	1 6	3" per yd. sup. ..	2 0
2½ " " ..	1 8	4" " " ..	2 4

CRANHAM TERRA COTTA.

2" per yd. sup. ..	3 0	3" per yd. sup. ..	3 8
2½ " " ..	3 6	4" " ..	4 7

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 6	12" x 9" x 3"	3 0
12" x 9" x 2½"	2 9	12" x 9" x 4"	3 9

Per yard super d/d. Free on site, London.

SAND.

Thames Ballast. ...	7 9	per yd.	delivered 2 miles radius Paddington.
Pit Ballast	7 3	" "	
Pit Sand.	9 9	" "	
Washed Sand	10 9	" "	
¾ in. Shingle	8 0	" "	
¾in. Broken Brick	12 0	" "	
Pan Breeze	8 3	" "	

CEMENT.

Best British Portland Cement. Standard Specification delivered London Area. £ s. d.
4 ton loads and upwards site ..... Per ton 2 4 6
1 ton to 4 tons site 2 7 6
Alongside Vauxhall in 80 ton lots 2 2 0
"Ferrocrete" Rapid Hardening Cement—
4 ton loads and upwards site 2 10 6
1 ton to 4 tons site 2 13 6
Alongside Vauxhall in 80 ton lots 2 8 0
Stored in Reserved Bins at works. 1/6 per ton extra.
"Aquacrete" Water Repellent, "Blue Circle" cement, 30/- per ton extra or ordinary "Blue Circle" prices.
"Colorcrete" Nos. 1 and 2. Coloured Rapid Hardening Portland Cement 3 14 6
"Colorcrete" not rapid hardening, according to colour, from £7 to £15 10s. per ton.
"Snow-crete" White Portland Cement. 9 5 0
Super Cement (Waterproof). 3 14 6

NOTE.—Paper bags will be charged at the rate of 5/- nett per ton. Jute sacks charged 1s. 9d. nett each and 1/6 nett each allowed if returned to works within two weeks, in good condition.
Carriage will be paid by makers on returned empty jute sacks.

Roman Cement £7 5 Keene's Cement, White £6 10 0
Parian Cement 6 10 " " Pink 6 5 0
Cementone Colours for cement according to tints per cwt. from £2 16s. 0d.

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	3 12 6	Strapite, Coarse	4 3 0
" White ..	4 0 0	" Finish ..	4 11 0
Pioneer	4 3 0		

Above prices for 4-ton loads and over London Area.

Best Ground Blue Lias Lime	2 17 6	Grey Stone Lime Chalk Lime	2 12 6
Granite Chippings	1 10 0	Hair per cwt. ..	2 7 6

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d., if returned in good condition within three months, carriage paid.
Stourbridge Fireclay in sacks 37s. per ton at rly. dep.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube ..... s. d. 2 11½

BEER STONE—RANDOM BLOCK—
Free on rail at Seaton Station. . per ft. cube 2 3
Delivered free on rail Nine Elms, S.R. " 3 1½
Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.

PORTLAND STONE—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube ..... s. d. 4 6
Do. do. delivered on road waggons as above stations, per ft. cube 4 6
White bastbed 3d. per ft. cube extra.
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.

HOPTON-WOOD STONE—
F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over F.ft.ob. 14 0
Sawn two sides 22 6

HOPTON-WOOD STONE—
Sawn three or four sides 27 9

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station, London.
6 in. sawn two sides landings to sizes (under 30 ft. super) ..... per ft.super 5 6
6 in. rubbed two sides, ditto .... " 6 3
8 in. sawn two sides slabs (random sizes) ..... " 2 7
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) ..... " 1 8½
1¼ in. to 2 in., ditto ..... " 1 4½

HARD YORK—
Delivered at any Goods Station, London.
Scrappled random blocks. ..... per ft. cube 6 10
6 in. sawn two sides landings to sizes (under 40 ft. super) ..... per ft.super 5 7½
6 in. rubbed two sides, ditto .... " 6 9
4 in. sawn two sides slabs (random sizes) ..... " 3 5
3 in. ditto ditto ..... " 2 5
2 in. self-faced random flags ..... Per yd. super 8 9

CAST STONE.

Delivered in London are in full van loads, per ft. cube: Plain, 7s. 6d. Moulded, 8s. 6d. Sills, 10s. 0d.

HARD WOOD.

1 INCH AND UP THICK.

	£ s. d.
Average price for prime quality.	
Dry Austrian Wainscot, per ft. cube	0 17 0
Dry American and/or Japanese Figured Oak, per ft. cube ..... 10 6 to	0 13 0
Dry American and/or Japanese plain Oak, per ft. cube	0 11 6
Dry sq. edged Honduras Mahogany, per ft. cube.	0 15 0
Dry log-cut Honduras Mahogany, per ft. cube. ..... 12 6 to	0 16 0
Dry Cuba Mahogany, per ft. cube	0 18 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 6
Dry Australian Walnut, per ft. cube	0 19 0
Dry Queensland Silky Oak, per ft. cube	0 12 6
Dry African Mahogany, per ft. cube	0 10 0
Dry African Whitewood, per ft. cube	0 8 0
Dry English Wainscot Oak, per ft. cube	0 16 0
Best Scotch Glue, per cwt.	3 0 0
Liquid Glue, per cwt. ..... 4 7 0 to	5 10 0

SOFT WOOD.

MERCHANTABLE BRITISH COLUMBIAN PINE.

	Minimum. £ s. d.	Maximum. £ s. d.
Scantlings in imported sizes, 2in. by 3in. to 4in. by 11in.	43 10 0	53 0 0

Having secured the Contract— What about the Steel Scaffolding?

TUBULAR

—S & C—

SCAFFOLDING

For the lowest Prices apply to the Oldest Firm in The Scaffolding Trade.

STEPHENS & CARTER LTD.

The British Steel Scaffolding Co.

731-761, HARROW RD., N.W.10.

Telephone No. Ladbroke 1191 (6 lines).

PLANED BOARDS.

PRIME CLEAR BRITISH COLUMBIAN PINE.

	Per standard. £ s. d.
1in. by 11in. } 1in. by 9in. }	67 10 0

	Per square. s. d.
1in. plain edge flooring	53 0
1¼in. ditto	66 6
1in. tongued and grooved	53 0
1¼in. ditto	66 6

MATCHING.

	Per square. s. d.
1in.	37 6
1in.	42 0
1in.	55 0

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	34 17 6	18 by 10	19 5 0
22 by 13	29 0 0	18 by 9	17 15 0
22 by 11	26 15 0	16 by 10	16 17 6
20 by 12	26 2 6	16 by 8	13 10 0
20 by 10	24 0 0		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. ..... Per 1,000 f.o.r. London

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district.	£5 10 0
Ditto hand-made ditto	6 10 0
Ornamental ditto	6 15 0
Hip and valley tiles { Hand-made	0 11 6
(per dozen) { Machine-made.	0 11 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

R.S. Joists, cut and fitted	£22 10 0
Plain Compound Girders.	25 0 0
" Stanchions	27 10 0
In Roof Work	32 10 0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	22 5 0	⅝ in. to ½ in. ..	20 15 0
⅜ in.	21 5 0	⅝ in. to 2½ in. ..	20 5 0

WROUGHT TUBES AND FITTINGS.
Deliveries from works.
Deliveries from London stock further 2½% gross.

	Tubes. ½"/6" %	Tubulars. ¾"/6" %	10/17 and 19/24 %	Fittings. Flanges. ½"/2" %	2½"/6" %
Light weight ..	55½	—	48	51½	58
Heavy weight ..	48½	48½	40½	41½	50½
Galv.lightweight	44½	—	39½	40½	49½
Galv.heavyweight	35½	35½	31½	30½	41½

Tubes and tubulars sizes ½"/⅜" inclusive, charged extra of 5% less gross.
Fittings. Figs. 25/34 5% less gross discount.
Terms.—Nett cash end of month following date of invoice. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS—London Prices ex Works. per yd. in 6 ft. lengths.

	Gutters.	Nozzles.	Stop ends.
3 in.	1/4½	1/1	4d.
3½ in.	1/5½	1/2½	4d.
4 in.	1/5½	1/4½	6½d.
4½ in.	1/6½	1/8	7½d.
5 in.	1/10½	1/11½	8d.

O.G. GUTTERS.

3 in.	1/9	1/5½	4½d.
3½ in.	1/11½	1/5½	6d.
4 in.	1/11½	1/6½	7d.
4½ in.	2/0½	1/9½	8d.
5 in.	2/6	2/0½	9½d.

RAIN WATER PIPES.

Per yd. in 6 ft.	Pipe.	Bends.	Branches. Stock angles.
2 in.	2/0½	1/4½	2/0
2½ in.	2/1½	1/6½	2/4½
3 in.	2/7½	1/11½	2/10½
3½ in.	3/1	2/3½	3/4½
4 in.	3/6½	2/9½	4/0½

NETT PRICES.
Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES.—London Prices, ex Stock.

Per yd. in 6 ft.	Pipe.	Bends.	Branches.
2 in.	3/4½	2/4½	2/10½
2½ in.	4/0½	2/7½	3/7½
3 in.	4/4½	2/10½	4/3½
3½ in.	4/5½	3/7½	5/0½
4 in.	4/10	4/0½	5/9½

L.C.C. COATED DRAIN PIPE.

	Pipe.	Bends.	Branches.
3 in. per yd. in 9 fts.	5/5	6/3	9 11
cwt. qr. lbs.			
4 in. 1 1 20.	7/11	7/1	12/6
5 in. 1 2 22.	9/7	12/9	19/3
6 in. 2 0 6	11/5	14/8	25/6

Gaskin 65/- per cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(*contd*).

	Per ton basis in London. £ s. d.			£ s. d.
Iron.—Staffordshire Crown, Merchant quality	17 2 6	to	18 7 6	
Iron.—Staffordshire Marked Bars	20 0 0	to	22 0 0	
Mild Steel Bars	19 12 0	to	21 2 0	
Mild Steel Hoops	21 6 0	to	21 16 0	
	Ex Merchant's Stock, per ton (two-ton lots).			
Soft Steel Sheets, C.R. and C.A.—				
20 gauge	24 17 6	to	27 5 0	
24 gauge	25 2 6	to	27 0 0	
26 gauge	25 17 6	to	27 15 0	
Galvanised Corrugated Sheets, 6 ft. to 9 ft.—				
20 gauge	27 1 3	to	28 6 3	
24 gauge	27 11 3	to	28 16 3	
26 gauge	28 16 3	to	30 11 3	
Galvanised Flat Sheets, C.R. and C.A.—				
20 gauge	28 11 3	to	30 8 9	
24 gauge	29 1 3	to	30 18 9	
26 gauge	30 6 3	to	32 3 9	
	Per ton. £ s. d.		£ s. d.	
Cut Nails, 3 in. and up	26 0 0	to	27 10 0	
	All Nett.			

MURAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot *super*.

COPPER.

Seamless copper tubes (basis)	per lb.	1/3
Strong sheet	"	1/6
Thin sheet	"	1/7
Copper nails	"	1/6
" wire	"	1/6

PLUMBERS' BRASS WORK.

Delivered in London.
Stamped by Met. Water Board.

CRUTCH HEAD S.D. BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
34/-	59/- per doz.

CHROMIUM PLATED TOILET S.D. BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
50/-	68/- per doz.

S.D. STOP COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
37/6	53/-	87/-	202/-	288/-	480/- per doz.

S.D.S. COCKS WITH TWO UNIONS FOR LEAD.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
47/-	75/6	120/-	228/-	360/-	588/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
8/10	9/9	15/9	27/3	44/-	63/6 per doz.

HEAVY CROYDON BALL VALVES. SCREW IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
45/-	72/-	120/-	204/-	260/- per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
10/6	12/9	19/3	34/-	48/-	53/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
9/9	12/6	22/6	33/-	42/- per doz.

DRAWN LEAD TRAPS WITH BRASS CLEANING SCREWS.

1½ in.	1½ in.	2 in.	3 in.
8 lb. Lead P...	29/-	38/-	54/-	93/- per doz.
8 lb. Lead S...	36/-	42/-	67/-	120/- "

SOLDER.—Plumbers, 1/5. Tinmen's, 1/9. Blow pipe, 1/10 per lb.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil, in drums	per gallon	0 5 4
Boiled " in drums	"	0 5 7
Turpentine, in drums (10 gals.)	"	0 5 3
Genuine Ground English White Lead, (in not less than 5-cwt. casks).	per ton	61 0 0
Extra for 1-cwt. kegs over 5-cwt. casks is 2/9 cwt.		
GENUINE WHITE LEAD PAINT "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganwyte," "Polacco," "J" Brand, and other best brands (in 14 lb. tins) not less than 5-cwt. lots	per ton delivered	83 10 0
Red Lead, Dry (packages extra)	per ton	52 0 0
Best Linseed Oil Putty (1 ton lots)	per cwt.	0 17 1½
Size, XD quality	ffkn.	0 3 6
Turpentine substitute can be obtained and prices vary according to the quality from 2/9 gallon upwards.		
		£ s. d.
SNOWCEM CEMENT PAINT	per cwt.	2 16 0
C.M.C. CAMOUFLAGE PAINT	per cwt.	2 16 0

VARNISHES, &c.

		Per gallon.
Oak Varnish	Outside	0 14 0
Fine do.	"	0 16 0
Fine Copal	"	0 18 0
Pale Copal	"	1 0 0
Pale Opal Carriage	"	1 4 0
Best do.	"	1 12 0
Floor Varnish	Inside	0 19 0
Fine Pale Paper	"	0 18 0
Fine Copal Cabinet	"	1 2 0
Fine Copal Flatting	"	1 0 0
Hard Drying Oak	"	0 18 0
Fine Hard Drying Oak	"	0 19 6
Fine Copal Varnish	"	1 0 6
Pale do.	"	1 12 0
Best do.	"	1 2 6
Best Japan Gold Size		1 12 6
Best Black Japan		0 10 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 0
Knotting (patent)		0 15 0
French and Brush Polish		0 12 0
Liquid Dryers in Terebene		0 9 0
Outside Black Enamel		0 7 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

ORDINARY GLAZING QUALITY (O.Q.) AND SELECTED GLAZING QUALITY (S.Q.).

PER FOOT SUPER.

In sizes not exceeding 80 in. long or 48 in. wide or 110 united inches.

	O.Q.	S.Q.
18 oz. in 300 ft. cases	2½d.	2¾d.
24 oz. " 200 ft. "	3½d.	4d.
26 oz. " 200 ft. "	3¾d.	4¼d.
32 oz. " 200 ft. "	5¼d.	6¼d.
24 oz. " 300 ft. "	3¾d.	3¾d.
28 oz. " 300 ft. "	3¾d.	4¼d.
32 oz. " 300 ft. "	5¼d.	6¼d.
18 oz. Obscured Sheet		5¼d.
24 oz. Obscured Sheet		6¼d.
Fluted, 21 oz.		9d.
Enamelled, 18 oz.		5¼d.
" 24 oz.		6¼d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

	Per ft.
Rolled plate, ¼ in.	5¼d.
Rough cast double rolled, ⅜ in.	6¼d.
Rough cast double rolled, ½ in.	6¼d.
Figured rolled, and Cathedral, white	6¼d.
Figured rolled and Cathedral, tinted	9¼d.
Rolled Sheet	6d.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	0 10½

Rolled plate is the same price as rough cast double rolled.

	Per ft. s. d.
Wire Rolled, ¼ in. thick	0 9½
Wired Cast, ¼ in. thick	0 9½
Georgian Wired Cast	0 10
"Calorex" Sheet, 21 oz.	2 6
" 32 oz.	4 0
" Cast, ¼ in. thick	0 10
" " ⅜ in. thick	1 0
" " ½ in. thick	1 2
Non Actinic Glass, ¼ in. thick	0 9½
" " ⅜ in. thick	1 0
" " ½ in. thick	1 2

"VITA" GLASS.

	Per ft. s. d.
"Vita" Plate Glass, about ⅛ thick	
To 7 ft. super	5 0
Over 7 ft. super	7 6
"Vita" Sheet Glass, about 18/20 oz.	2 0
Cathedral "Vita" Glass:	
¼" thickness	2 0
⅜" "	3 0
½" Georgian Wired "Vita" Glass	3 6

LEAD, &c.

(Delivered in London.)	Per ton. £ s. d.
LEAD.—Sheet, English, 4 lb. and up	34 10 0
Pipe in coils	34 0 0
Soil pipe	39 10 0
Compo pipe	41 5 0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ..... per ton £18 0 0

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from October 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A¹	A²	A³	B	B¹
Craftsmen	1/10	1/9½	1/9	1/8½	1/8	1/7½
Labourers	1/4½	1/4½	1/3½	1/3½	1/3	1/2¾

Aberdeen	A	Dumfriesshire	A²	Inverness	*	Perthshire	A²
Ayrshire	A	Dundee	A	Inverurie	A¹	Peterhead	A¹
Banff	B	Dunoon	A	Kincardineshire	A²	Renfrewshire	A
Berwickshire	A²	East Fife	A	Kinross-shire	A	Rothesay	A
Bridge of Allan	A	East Lothian	A	Lanarkshire	A	Roxburghshire	A²
Broughty Ferry	A	Edinburgh	A	Midlothian	A	St. Andrews	A
Clackmannanshire	A	Fifeshire	A	Monifieth	A	Selkirkshire	A²
Doune	A	Forfarshire	A²	Moray and Nairn	B	Stewartry	A²
Dunblane	A	Glasgow	A	Newport	A	Stirlingshire	A
Dumbartonshire	A	Greenock	A	Peebleshire	A²	Stornoway	A²
Dumfries	A¹	Hamilton	A	Perth	A	Tayport	A
						West Lothian	A

* This town has its own rates: Masons, 1/8; Carpenters, 1/6; Slaters, 1/8; Plumbers, 1/8½, Plasterers, 1/9 but 1/9½ is paid owing to the scarcity at present; Painters, 1/8 and Labourers, 1/3½.

The information given in this table is copyright. Rates of wages in England and Wales are given on page 18.

THE SCOTTISH BUILDER

AUCHTERMUCHTY.—POLICE STATION.—Plans in hand for new police station and offices. The architect is Mr. G. Sandilands, County-bldgs., Cupar.

Pre-cast Pile Foundations

CONSULT THE FOUNDATION SPECIALISTS

★

PILING & CONSTRUCTION COMPANY LIMITED

45, WORCESTER RD., SUTTON, SURREY
TELEPHONE: VIGILANT 0081/2
WORKS: THICKET CRESCENT, SUTTON

35-59

BISHOPBRIGGS.—ADDITIONS.—Plans prepared for additions for Messrs. Blackie & Son, Ltd., 17, Stanhope-st., Glasgow.

CARLUKE.—CANTEEN.—Plans prepared by T. H. Gibson & Co., Milton Tile Works, for new canteen.

CLELLAND.—ADDITIONS.—Plans prepared for alterations and additions at Swanton Farm-rd. Mr. John Steel, architect, Main-st., Wishaw.

FALKLAND.—OFFICES.—Plans for reconstruction and additions for new police offices and house prepared by Mr. G. Sandilands, County-bldgs., Cupar.

GLASGOW.—ADDITIONS.—Plans prepared for additions for Messrs. A. Low & Sons, Ltd. Messrs. James Cruickshanks & Sons, 71-81, Anderson-st., Glasgow, are the architects.

MOTHERWELL-WISHAW.—ADDITIONS.—Plans prepared for reconstruction and additions to office buildings. The architects are Messrs. Cullen, Lochhead & Brown, Cadzow-st., Hamilton.

RENFREW.—PREMISES.—Plans prepared by their own architects, the Clyde Valley Electrical Power Co., Ltd., St. Vincent-st., Glasgow, for transformer station.

ST. ANDREWS.—RECONSTRUCTION.—The St. Andrews Preservation Trust has approved of a scheme for the reconstruction of the first two houses in London's-close as a girls' club.

NEW BUILDINGS IN LONDON

COULSDON AND PURLEY.—BUILDING.—The U.D.C. approved: Messrs. Thomas Ailby, Ltd., shop with two flats, 12, Godstone-road, Purley, and Messrs. Grace and Marsh, Ltd., conversion of landings into 8 bedrooms at Selsdon Park Hotel, Selsdon.

HACKNEY.—EXTENSIONS.—The B.C. has received sanction from the Electricity Commissioners for borrowing further moneys for extensions to the electricity generating station.

GLASS REPLACEMENTS

SCHEDULE OF MAXIMUM PRICES.

NOVEMBER 1, 1940 (REPLACING 18.7.1940).

THE following Schedule of Maximum Prices for Glass Replacements necessitated by War Damage (No. 2) has been issued by the London Plate Glass Merchants' Association :

All the following prices are for flat glass of ordinary quality and glazing in wood. All prices are based on the costs of material, labour and transport ruling at November 1, 1940, and will remain in operation until an amended schedule is issued.

All prices cover taking out old and supplying and glazing new glass, and usual glazing services only, which do not include demolition work, clearing away debris, erecting scaffolding, sash or constructional repairs, painting, putties, etc.

An extra charge may be made in cases of exceptional difficulty, such as jobs difficult of approach or involving long travel, but such extra charge must be detailed as a separate item over and above the scheduled prices, and, where possible, the customer should be notified beforehand.

Polished Plate Glass.

In sizes not exceeding	Price per ft. sup. net. s. d.
2 ft. super	2 11
3 ft. do.	3 6
6 ft. do.	4 5
45 ft. do.	4 9
100 ft. do.	5 5

(Larger sizes, *i.e.*, exceeding 100 ft. super, or 160 in. long or 100 in. wide, and other thicknesses, if available, to be charged extra.)

Sheet Glass.

	Per ft. sup. net. s. d.
18 oz. Sheet	1 4
24 oz. do.	1 5
26 oz. do.	1 6
32 oz. do.	1 9

Sundry Glass.

	Per ft. sup. net. s. d.
Rolled Plate and Rough Cast ...	1 7½
Wired Rolled and Wired Cast ...	1 10½
Georgian Wired Cast	1 11
Figured Rolled and Cathedral (White)	1 7½

(N.B.—The above prices for Sheet and Sundry Glass apply to jobs of 50 ft. super and over, and to sizes of 2 ft. super and over. For jobs of under 50 ft. super and/or sizes under 2 ft. super, 4d. per ft. super extra.)

Extras.

For glazing solid metal casements or frames with ordinary putty, 1d. per ft. super extra.

For glazing solid metal casements or frames with screw beads or screw clips, 4d. per ft. super extra.

Roof work : up to a height of 30 ft., 1d. per ft. super extra; for a height of 30 ft. or over, 2d. per ft. super extra.

Bent Glass extra.

Other special glazing at an extra charge.

The sum of 5s. may be charged for any job that would work out at less on the above-mentioned rates.

Repair of Damaged Business Premises.

To assist owners of factories or other business premises, the Board of Trade has issued a leaflet bringing together all the necessary information as to steps to be taken to obtain materials to repair or licences to rebuild premises and plant damaged by enemy action. In view of the need for the greatest possible economy in the use of materials and labour, the leaflet tells owners that they can expect to be allowed to carry out only "first aid" repairs unless they are engaged upon essential work. Copies of the leaflet may be obtained through Local Authorities or direct from the Regional Licensing Officers of the Ministry of Works and Buildings, or from the Regional Officers of the Ministry of Health.

A MARGATE MAJORITY

BUILDING FIRM TO CELEBRATE BIRTHDAY AFTER THE WAR.

LAST month the Margate branch of Messrs. Rice and Son, Ltd., celebrated its majority. It was formed in 1919 to carry out work in the east and south-east of England when the late Sir Frederick Rice, who was later M.P. for Harwich, was chairman of the company, and the Margate branch has been responsible for the erection of a large number of important buildings, both in Margate itself and in other towns throughout Kent.

In happier days the occasion would have been marked with the appropriate celebrations. These, in present conditions, are impossible, but the governing directors—Major A. D. S. Rice and Mr. W. E. Rice—do not intend to allow the 21st birthday of the Margate branch to be forgotten, and they are therefore inviting public men, architects, representatives of the building industry and others to a function to be held after the war to celebrate it. The Mayor of Margate, Mr. George P. Hoare, and the M.P. for the district, Captain Harold Balfour, Under-Secretary for Air, have both promised to attend.

The firm of Rice and Son can trace their history as builders and contractors back to the eighteenth century. Records show that at Blackdown, in Devonshire, on the edge of Dartmoor, a local building contractor named Rice lived and worked. He had five sons, one of whom, Sleeman Rice, migrated to London about 1850 and set up on his own in London. His son, the late Sir Frederick Rice, inherited and extended the business, and later took into partnership his youngest brother, Mr. A. D. S. Rice, the present chairman. His son, Mr. W. E. Rice, joined the firm in 1919, and is now vice-chairman of the company.

The founding and supervising of the Margate branch have been the particular work of Mr. W. E. Rice, who for four years lived in Margate.

London Hostels.

The Government have recently set up a body known as the London Hostels Association, Ltd., under the control of a council of management, with the object of providing in the London Civil Defence Region residential hostels for persons who, through circumstances arising out of the war, are in need of accommodation in such hostels. The manager of the Association is at 79, Eccleston-square, S.W.1.

DON'T TENDER UNSUCCESSFULLY

SECURE CONTRACTS WITH

THE STEEL SCAFFOLDING CO., LTD.

"BIG BEN TOWERS," 22, OATLANDS DRIVE, WEYBRIDGE, SURREY.

'Phone: Walton-on-Thames 614 and 615.

TENDERS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Tuesday morning.

Tenders for A.R.P. work will be found under "A.R.P. Schemes."

* *Denotes accepted.*
† *Denotes provisionally accepted.*
‡ *Denotes recommended for acceptance.*
§ *Denotes accepted subject to modification.*
¶ *Denotes accepted by H.M. Government departments.*

Barwell.—Meat house, for Barwell and District Co-operative Society, Ltd. Plans by Architects' Department, Co-operative Wholesale Society, Ltd., 1, Balloon-st., Manchester : —General contractor—*J. Lockley; lairage, etc., *Archer, Son & Lockley. (Both of Barwell.)

Blackpool.—Additions to works, for Bee Bee Biscuit Co., Ltd. J. H. Andrews and Butterworth, architects, 9, St. James'-sq., Manchester :—*Atherton Bros. (Blackpool), Ltd., Peter-st., Blackpool.

Gateshead.—Store for Estate Co. : *H. E. Pitt, Ltd., Leopold-st., Millfield, Sunderland.

Glasgow.—Painting at three registration offices, for T.C. T. Somers, architect, Office of Works :—Contractors, *McLean & Spiers, Ltd. ; *Arrol & Son and *T. S. Watson.

Glasgow.—Storage buildings for Sunderland & Co., Ltd. J. Morrison, architect, 3, Charles-st., Townhead : Excavation, brick and mason, *Cowieson, Ltd., Glasgow.

Glasgow.—Garage storage accommodation and other offices, for Messrs. Andrew Hailstones. Stewart, architect, 24, Lochleven-rd., Langside : Excavation, brick and mason, *T. Stewart, Ltd., Glasgow.

Kingston.—Control-room at a fire station, for T.C. :—*Thorogood & Sons, £250.

Lanarkshire.—Painting work on new Hamilton bridge and certain schools, for C.C. W. A. Watts, architect, Motherwell-Wishaw : *County Direct Labour Dept., Motherwell.

Lichfield.—Reinstatement of 13 Council houses, for R.D.C. J. G. Rimand, S. :—*E. Whittaker, 69, Rotten-row, Lichfield, £540.

Liverpool.—Works for Corporation : Structural steelwork, *F. Morton & Co., Ltd., Garston, Liverpool, £25,642 17s.; general building work, *W. Moss & Sons, Ltd., Liverpool, £12,432 1s. 5d. ; civil engineering work, *W. Moss & Sons, Ltd., Liverpool, £33,879 1s.

¶London (Air Ministry).—Contracts placed to value of £500 or over for the week ended Dec. 21 :—

General maintenance work : Jas. Blake, Ltd., Aberdeen; and John Shewan, New Pitsligo.

Civil engineering work : M. J. Gleeson, Ltd., North Cheam.

Erection of structural steelwork : R. W. Bell & Co. (Builders), Ltd., High Wycombe.

Aerodrome surface work : Landing Ground Corporation (Great Britain), Ltd., Isleworth.

¶London (War Dept.).—Contracts placed for week ended December 14 :—

Hutting (erection)—W. S. Lusher, School-ln., Sprowston, Norwich; H. Laverty & Sons (Belfast), Ltd., 12 and 14, Cambridge-st., Belfast; J. & R. W. Taggart, 22-30, Hopefield-ave., Belfast; and Collen Bros., Ltd., Hanover-st., Portadown.

Hutments—Rogers Bros., Ltd., Station-rd., Felixstowe.

Hutting—J. T. Parsons & Sons, Ltd., Station-rd., Westbury.

Building work—Pearn Bros., Ltd., Radnor-st., Plymouth; E. S. Moss, Ltd., 159, Brent-st., Hendon, N.W.8; Thos. McWhirter & Son, 2, Elmbank-st., Ayr; Jas. Anderson (Builders), Ltd., 46, Waterside, Irvine, Ayrshire; and Dunhill Bros., 387, York-rd., Leeds, 9.

Miscellaneous work—Grainger Bros., Holywood, Co. Down.

Constructional work—Dawnays, Ltd., Steelworks-rd., Battersea, S.W.1.

Works contracts placed for week ended December 21 :—

Hutments—E. W. Ballard, Longley-rd., Rainham, Kent, and J. Bleazard & Sons, Railway-close, Clitheroe.

Hutting (erection)—Slater Bros., Glemsford; Dolton Bros., Ltd., Hewtown-rd., Worcester; J. & R. W. Taggart, 22-30, Hopefield-ave., Belfast; Robert Marriott, Midland Works, Higham-rd., Rushden; Jordans, Wantage Works, Chestnut-rd., Northampton; Bosworth and Wakeford, Ltd., Daventry; W. M. Chivers & Co., Ltd., Devizes; A. T. Rowley (London), Ltd., Cambridge Works, Tottenham, N.17; Donald F. Hilliar, Ltd., 235, Bournemouth-rd., Parkstone; Kent and Sussex Contractors, Itd., Carlton-rd., Erith; and W. J. Simms, Sons & Cooke, Ltd., Haydn Works, Sherwood, Nottingham.

Constructional work—Walter Ripley & Sons, Ltd., 128, West-st., Leeds, 1.

Building work—Wm. Birch & Sons, Ltd., Spen-ln., York; Pearn Bros., Ltd., Radnor-st., Plymouth; J. H. Brough and Co. (Builders), Ltd., Station-rd., Beeston.

Miscellaneous works—J. Chuter, Lynchford-rd., Farnborough, and P. W. Wilkins & Son, Ltd., Brunswick-sq., Torquay.

Manchester.—Extensions to works : *Holland & Hannen and Cubitts, Ltd., London, S.W.1.

Manchester.—Extensions to works : *Building Dept., Frederick Smith & Co., Anaconda Works, St. Simon-st., Salford, 3.

Newcastle-upon-Tyne.—Shed and warehouse for Packers, Ltd. Newcombe & Newcombe, architects, Eldon-sq. : *R. W. Hutchinson, North-st., Newcastle.

Openshaw.—Rebuilding offices to works, for English Steel Corporation, Ltd. :—*W. Malthouse, Ltd., Derbyshire-ln., Sheffield.

Paisley.—Departmental buildings, for T.C. F. Stewart, architect, Municipal Offices : Excavation, brick and building, *C. Johnstone, Ltd.; Joinery, carpentry and ironmongery, *J. Clark & Co., Ltd.; slater and roughcasting, *Allan Stevenston; plumber and sanitary engineering, *Hunter & Gowdie, Ltd.; painting, glazing, *Thorburn & Dunlop. (All of Paisley.)

Rawtenstall.—Additions to works, for Glendale Yarns, Ltd. : *H. Trickett & Sons, Ltd., Turton Hollow, Crawshawbooth, nr. Waterfoot, Rossendale.

Rochdale.—Alterations to gentlemen's conveniences in basement of Town Hall, for T.C. Boro' Sur. : *Fred Butterworth, Exmouth-st., Rochdale.

Richmond (Yorks).—Approx. 60 shelters of the 4-cell type, holding 48 persons, for R.D.C. F. Blenkinsopp, Sur., 14a, Queen's-rd. :—

	Each shelter.
Andrew & Co., Darlington ...	£125 0 0
Dodds & Sons, Melsonby, Richmond (Yorks)	118 0 0
Feather & Co., Darlington ...	115 0 0
Mawson & Boddy, Darlington	105 0 0
*Dawson & Co., Darlington ...	98 14 6

Royton.—Interior decoration of 70 Council houses at Stotfield estate, for U.D.C. L. Cookson, S. :—*F. Kershaw, 32, Market-bldgs., Rochdale-rd., Royton, nr. Oldham.

Southwell.—Concrete floor and brick front, etc., for fire brigade store, for R.D.C. S. Cooper, S., 8, Westgate :—*W. H. Scarsgill, Farnsfield, £432.

Stepney.—Steel gangway, etc., at a generating station, for B.C. :—

Cargo Fleet Iron Co., Ltd.	£140
John Bellamy, Ltd.	135
*W. E. Smith (Erectors), Ltd., 71, Prince Regent-ln., E.	135

(All of London.)

Stretford.—Extensions to works. A. Ernest Sherman, F.R.I.B.A., architect, North House, North John-st., Liverpool :—General contractors, *Alfred Hodkinson, Ltd., 62, Greenhill-st., Greenheys, Manchester; steelwork, *Rubery, Owen & Co., Ltd., Booth-st., Darlaston; carpenter and joiner, *F. Butterworth (Blackley), Ltd., Armour-pl., Warren-st., Manchester; painter and plumber, *T. Murtha; reinforced fabric, *Grip Steel Bar Co., Ltd., 15, Green-ln., Brook-st., Manchester; asphalting, *Val de Travers Asphalte Paving Co., Ltd.; waterproofing and granolithic, *Verconstruction Co., Ltd.; patent glazing, *Standard Patent Glazing Co., Ltd., Forge-ln., Leeds; ironmongery, *Quiggin Bros., Ltd. (Rest of Liverpool.)

Trafford Park.—Canteen to works, for Superheater Co., Ltd. :—*F. E. Gill & Son, Ashburton-rd., Trafford Park, Manchester.

Wallasey.—Alterations to works, for Gandy Belt Manufacturing Co., Ltd. :—*J. W. Bradshaw, Poulton-rd., Wallasey.

TRADE NEWS

Changes of Address.

The R.I.W. Protective Products Co., Ltd., announce that their premises have been bombed and as from January 1, 1941, their office and works address will be 2, Orsman-road (late Canal-road), London, N.1.

The Ragusa Asphalte Paving Co. have returned to their head office at 25/7, Oxford-street, W.1, to which address all correspondence should be sent. They are retaining their Emergency Office at 18, Grange-road, Sutton.

Messrs. Tangyes, Ltd., notify us that their London house is now occupying temporary premises at 28, Budge-row, E.C.4. Phone : City 4324.

OFFICIAL NOTIFICATIONS

Stocks of Steel.

The Iron and Steel Control have been asked by the Ministry of Supply to take a complete census of the stocks of steel held by users. The inquiry will relate to the stock position at the end of December, and the form sent out by the Iron and Steel Control will require to be completed and returned by January 11, so that the results will be available by the middle of the month. In addition to stocks, the total receipts and consumption of steel in the last quarter of 1940 will be asked for.

The list of firms who are being written to has been built up from lists of customers of representative steel firms in each area, and although the number of firms being approached runs into many tens of thousands, some important, though not necessarily large, users of steel may have been omitted. As it is most desirable that every user of steel should be covered by the inquiry and should be on the Control's list of steel consumers, any firm that has not been written to within the first few days of January is asked to write to the Iron and Steel Control, Hemingford, Alveston, near Stratford-on-Avon, for the necessary form.

New Motor Vehicle Regulations.

The Minister of Transport has now made the Regulations which were recently foreshadowed, raising from 2½ tons to 3 tons the maximum unladen weight of goods vehicles which are allowed to travel at 30 m.p.h. A corresponding increase from 3 tons to 3½ tons is given in respect of goods vehicles which have been fitted with producer gas plant or gas cylinders for their propulsion. The concessions will offset the increased weight of replacement parts made from heavier substitute materials.

A further reprieve is granted for vehicles built before 1933 which are fitted with solid tyres. Under the existing Regulations these vehicles were due to be fitted with pneumatic tyres by the end of 1940.

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Boyle's "Air-Pump" Ventilator
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